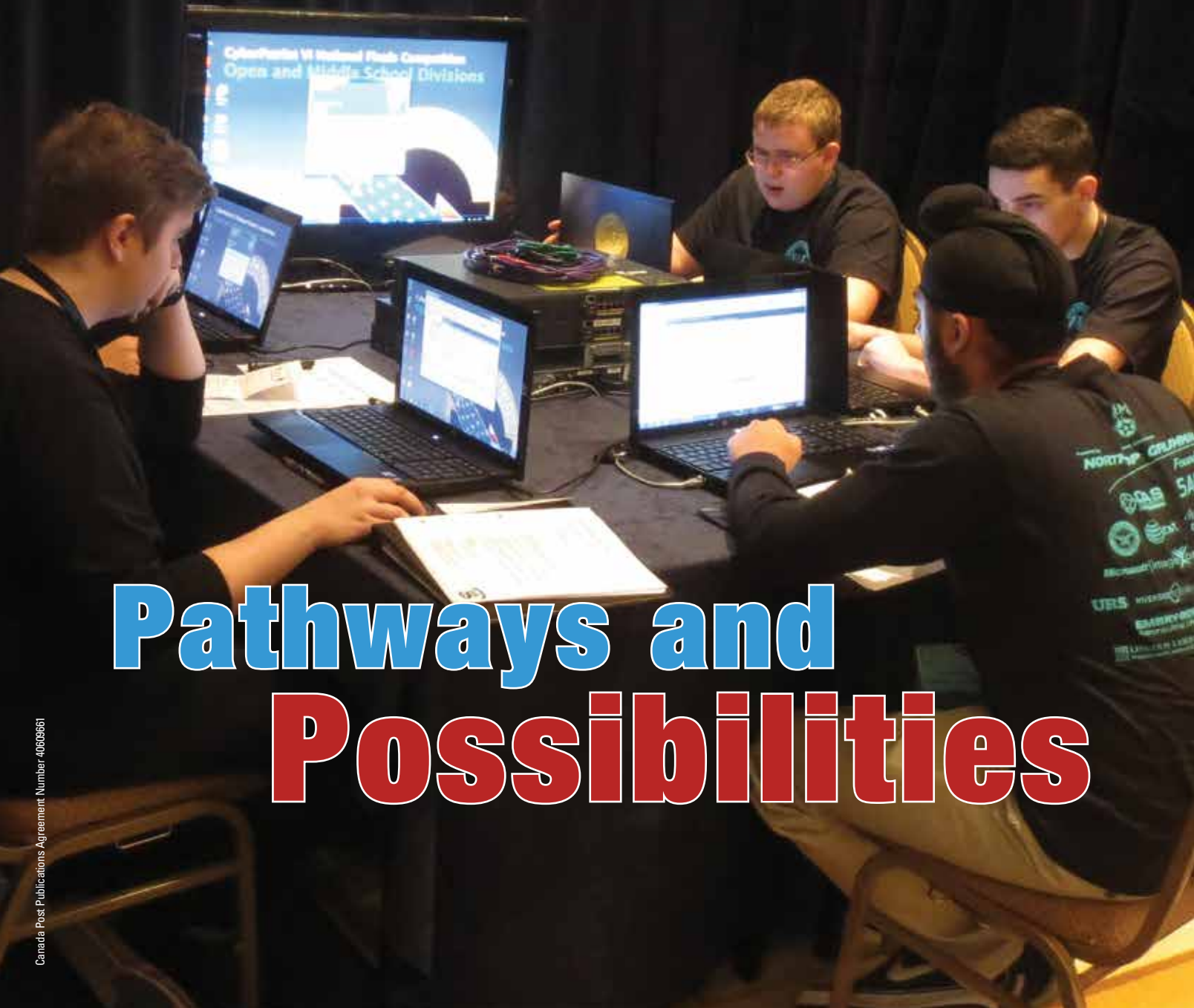




MASS Journal

Fall 2014

The official magazine of the Manitoba Association of School Superintendents



Pathways and Possibilities

A collage of various man-made objects and waste items, including a remote control, tires, plastic bottles, a light bulb, a keyboard, a television, and a paint can, arranged above a large green leaf.

Whether it's for a mobile phone, old tires or the paint from that reno you did last year, our new search tool will help you find the nearest depot to recycle it—anywhere in Manitoba. Now it's easy to search by location or by the type of product you want to drop off, making us your go-to recycling resource.



Part of
**TOMORROW
NOW** 
Manitoba's GREEN Plan

Manitoba

New BrightLink® Interactive Projectors

Now with Finger Touch & Gestures.

**Epson BrightLink is compatible
with top interactive software.**



**9 out of 10 people prefer
images from Epson projectors****

Learn More: epson.ca/K12
or contact your Epson Representative:
Glenn Corthey 204-891-4627

*Compared to leading 1-chip DLP business and education projectors based on NPD data, July 2011 through June 2013. Colour brightness (colour light output) measured in accordance with IDMS 15.4 Colour brightness will vary depending on usage conditions. **Among people who had a preference, 9 out of 10 preferred images from leading Epson projectors over leading 1-chip DLP business and education projectors. Leading projectors selected according to NPD data as of July 2013. Based on independent U.S. research conducted by Radius Research (July 2013).

EPSON is a registered trademark and EPSON Exceed Your Vision is a registered logomark of Seiko Epson Corporation. BrightLink is a registered trademark of Epson, America, Inc. Copyright 2014 Epson America, Inc.



SERVING MANITOBA SCHOOLS SINCE 1980

AUDIO • LIGHTING • STAGING • DRAPERY



RENTALS • SALES • TECHNICAL SUPPORT

new
↘

204 284-1950

STAGE LITE MANITOBA LTD. 130 MIDLAND STREET, UNIT 7 WINNIPEG, MB, R3E 3R3

www.stagelite.ca

MASS Journal

Published For:

The Manitoba Association of School Superintendents

375 Jefferson Avenue

Winnipeg, Manitoba

R2V 0N3

Phone: (204) 487-7972

Fax: (204) 487-7974

E-mail: ken.klassen@7oaks.org

Web: www.mass.mb.ca

Published By:

Matrix Group Publishing Inc.

Publication Mail Agreement Number

40609661

Return Undeliverable Addresses to:

309 Youville Street

Winnipeg, MB R2H 2S9

Toll free: (866) 999-1299

Toll free fax: (866) 244-2544

President & CEO

Jack Andress

Chief Operating Officer

Jessica Potter

jpotter@matrixgroupinc.net

Publishers

Peter Schulz, Joe Strazzullo

Editor-In-Chief

Shannon Savory

ssavory@matrixgroupinc.net

Editors

Meg Crane

mcrane@matrixgroupinc.net

Alexandra Walld, Danelle Cloutier

Finance/Accounting & Administration

Shoshana Weinberg, Nathan Redekop,

Pat Andress

accounting@matrixgroupinc.net

Director of Marketing & Circulation

Shoshana Weinberg

Sales Manager

Neil Gottfred

Sales Team Leader

Colleen Bell

Matrix Group Publishing Inc. Account Executives

Alex Incretolli, Ansuta Louisy, Anthony

Doucet, Bonnie Petrovsky, Brian Davey, Brian

MacIntyre, Carlo Castro, Christine Gilbank,

David Roddie, Fatima Khan, Frank Kenyeres,

Jim Hamilton, Miles Meagher, Rick Kuzie,

Rob Allan, Rob Choi, Rob Gibson, Roderick

O'Quin, Shalynn Ramsden

Layout & Design

Cody Chomiak

Advertising Design

James Robinson

For advertising information contact

Matrix Group Publishing Inc. at

(866) 999-1299.

©2014 Matrix Group Publishing Inc. All rights reserved. Contents may not be reproduced by any means, in whole or in part, without the prior written permission of the publisher. The opinions expressed in this magazine are not necessarily those of Matrix Group Publishing Inc.



MASS Journal

TABLE OF CONTENTS

Messages

- 7 A Message from the President of MASS / Message du président du MASS**
- 9 A Message from the Minister of Education and Advanced Learning / Ministre de l'Éducation et de l'Enseignement supérieur**
- 11 MASS Executive 2014-2015**
- 13 2014-2015 MASS Priorities**

THEME: VOCATIONAL EDUCATION, CAREER PREPARATION

Features

- 14 Career Development: The Way to Engage High School Students**
By Adriano Magnifico
- 19 Career and Technology Studies**
By Brenda Mutchter
- 20 Vocational Education in Park West School Division**
By Stephen David
- 24 Building Opportunities for Manitoba's Youth**
Apprenticeship Manitoba
- 28 Frontier Builders: The Hub Model Continues to Grow**
By Tyson Mac Gillivray and Grant Kreuger
- 31 Learning . . . Outside the Box!**
By Kirk Baldwin and Adair Warren
- 34 The Cisco Networking Academy**
By Phil Klassen
- 35 Preparing Students for Cyber Security Employment**
By Charles Bazilewich, Nick Dixon and Sandeep Sheera

38 Buyer's Guide

On the Cover:

Sisler High School students took part in a cyber security defence competition in Washington, D.C. in March 2014. In preparation, they learned new skills that could help them build a career when they are done school.





INTRODUCING RECYCLE EVERY WHERE **101**

A new program to get Manitoba schools recycling.

Boost your school's beverage container recycling rate with Recycle Everywhere 101. This free, new program will have your school recycling every empty can, carton, juice box and bottle in sight.

Once you register, you'll receive:

- Free Recycle Everywhere bins
- Posters, t-shirts and other Recycle Everywhere gear
- Bin placement tips and promotion ideas

Visit our website to kick-start your school's new Recycle Everywhere 101 program!

Enrol now at **RecycleEverywhere.ca**

A FREE program to improve your school's recycling.



Barb Isaak
*Assistant Superintendent,
River East Transcona School Division*

As president of the Manitoba Association of School Superintendents (MASS), I am pleased to present our fall 2014 *MASS Journal* focusing on career pathways for Manitoba students. Each article in this issue of the journal provides us with an opportunity to increase our understanding of the choices our students have to make to create an authentic connection between the classroom and potential career paths.

The emphasis on exploring and understanding career possibilities is evolving and is available to students earlier than ever before. As you will come to appreciate through reading the articles, our schools are creating and facilitating strong links for students to begin dreaming and planning for future career opportunities. The ability to explore diverse career pathways, together with strong foundational skills, allows students to build a connection to employment and career interests of their choice.

An underlying theme of several articles is the strong partnership between school learning and post-secondary training, either on the job or in a classroom environment.

The articles in this issue are proof that geography does not need to be a barrier for our students to engage in authentic experiences that will serve to strengthen their understanding and skill development as they move through high school.

The examples cited in these articles speak to much more than the teaching of the core curriculum. They illustrate how our education system continuously works to improve students' skills and abilities so they can become citizens who are better prepared to take the opportunity to enhance their lives and their community.

A titre de présidente de la Manitoba Association of School Superintendents (MASS), je suis heureuse de présenter le numéro de l'automne 2014 du *MASS Journal*, dans lequel on s'intéresse particulièrement aux cheminements de carrière des élèves manitobains. Chaque article du présent numéro nous donne l'occasion de mieux comprendre les choix que nos élèves ont à faire pour réellement arrimer l'enseignement en classe à un éventuel cheminement de carrière.

On accorde de plus en plus d'importance à l'exploration et à la compréhension des débouchés professionnels, et les élèves peuvent s'y atteler plus tôt que jamais dans leur parcours scolaire. Comme vous le constaterez à la lecture de ces articles, nos écoles créent et facilitent l'accès à des outils de liaison afin que les élèves puissent commencer à rêver à des possibilités de carrière pour l'avenir et à planifier tout ça. En étant en mesure d'explorer divers cheminements de carrière, tout en se dotant de solides compétences de base, les élèves peuvent se donner des moyens en vue d'un emploi et pour poursuivre leurs intérêts professionnels.

Plusieurs articles ont comme thème sous-jacent le lien étroit entre l'apprentissage scolaire et la formation post-secondaire, que ce soit en cours d'emploi ou dans une salle de classe.

Les articles du présent numéro témoignent du fait que la géographie ne doit pas empêcher nos élèves de vivre des expériences authentiques qui les aideront à approfondir leur compréhension et à améliorer leur processus d'acquisition de compétences au fil de leurs études secondaires.

Les exemples présentés dans les articles vont bien au-delà de l'enseignement des matières du tronc commun. Ils illustrent comment nous nous efforçons dans notre système d'éducation de constamment améliorer les compétences et aptitudes des élèves, de façon à ce qu'ils deviennent des citoyens capables de tirer profit des occasions qui se présentent de mener une vie meilleure et de contribuer à leur communauté.

Voluntary Benefits for RTAM Members.

RTAM's goal is to provide the best voluntary benefits at a competitive price to meet the health needs of the majority of retired teachers. Since 1998, we achieved this through RTAM's sponsorship of an increasing range of voluntary insurance plans.

A variety of voluntary insurance options are available to RTAM members and their eligible dependents including:

- Travel Insurance with Trip Cancellation & Interruption
- Additional Stand Alone Trip Cancellation
- Extended Health Care with Elder Care
- Dental Care
- Guaranteed Issue Life Insurance
- Term Life Insurance
- Home Insurance

For more information please contact the plan administrator, Johnson Inc.

1.877.989.2600 | www.johnson.ca/rtam

11120 – 178 Street NW, Edmonton, AB. T5S 1P2

RTAM sponsors **pre-retirement seminars for teachers** each spring.





James Allum

*Minister of Education and Advanced Learning /
Ministre de l'Éducation et de l'Enseignement supérieur*

...our government is committed to providing our students with the skills they need to take advantage of our growing economy.

Welcome back to school! I'm thrilled that this year's fall-edition of the *MASS Journal* has a focus on skills training. As a government we are committed to ensuring our young people get the education and training they need to go on to get a good job here in Manitoba.

That is why, this past May, we created a dedicated \$30 million fund for shops projects and skills training. In partnership with school divisions across the province, we are helping to build, upgrade or refit skills training and vocational facilities, making it easier for students to take advantage of educational opportunities that match their skills and interests.

Whether it is a brand new online and broadcast media studio at Louis Riel Arts and Technology Centre or major paint shop and culinary arts additions at Kildonan East Collegiate, our government is committed to providing our students with the skills they need to take advantage of our growing economy.

Best wishes in the coming school year.

Bon retour à l'école! Je suis très heureux que l'édition d'automne de cette année du bulletin de la Manitoba Association of School Superintendents porte sur la formation axée sur des compétences. En tant que gouvernement, nous sommes résolus à ce que les jeunes reçoivent l'éducation et la formation dont ils ont besoin pour obtenir un bon emploi ici au Manitoba.

C'est pourquoi, au mois de mai cette année, nous avons créé un fonds spécial de 30 millions de dollars pour des projets en atelier et la formation axée sur les compétences. En partenariat avec des divisions scolaires partout dans la province, nous contribuons à la construction, à la modernisation et au réaménagement des établissements de formation professionnelle, afin que les élèves puissent plus facilement profiter des possibilités éducatives qui correspondent à leurs compétences et à leurs intérêts.

Que ce soit un tout nouveau studio de médias électroniques et en ligne au Louis Riel Arts and Technology Centre ou un agrandissement majeur des ateliers de peinture et d'arts culinaires au Kildonan East Collegiate, notre gouvernement s'est engagé à faire en sorte que les élèves acquièrent les compétences qui leur sont nécessaires pour profiter de notre économie croissante.

Je vous souhaite beaucoup de succès pour cette nouvelle année scolaire.

Manitoba 



Portable Wheelchair Lift

The Mobilift CX from Adaptive Engineering Inc. is an economical, manually operated lift that facilitates disabled access to stages, platforms, bleachers and over stairs.

The lift weighs only 268 pounds, rolls easily from place to place, with a storage foot print of 72" x 38". The CX can be used indoors or outdoors and elevates to a height of 60" in less than 20 seconds.

1-403-243-9400 or 1-800-448-4652

www.adaptivelifts.com , info@adaptivelifts.com

419 – 34th Ave. S.E., Calgary, AB T2G 1V1

Adaptive Engineering Inc.



what if a chair could improve student success?

We believe it can. So we designed the **Node®** chair with that goal in mind. To learn more about node, visit www.steelcase.com/StudentSuccess.



Steelcase®
Education Solutions



Direct Advice.

We simplify the legal process for you and ensure you receive strong value for your investment, every time.
Decisive. Direct. That's Fillmore Riley.

Contact **Robert A. Simpson**
about your legal challenge.
TEL (204) 957 8331
rasimpson@fillmoreriley.com
www.fillmoreriley.com



FillmoreRiley

Decisive. Direct.

FILLMORE RILEY LLP BARRISTERS, SOLICITORS AND TRADEMARK AGENTS

ELKAY®
commercial
products

EZH₂O™

Bottle Filling Station



**Is your school clean
and GREEN?**

Quick

Clean

Green

- Electronic sensor provides touchless, sanitary operation
- Integrated Silver Ion Antimicrobial protects against mold and mildew growth
- EZH₂O saves the environment from plastic bottle pollution

For more information please contact:

Quadra Marketing & Sales
Tel: 204-832-2354
Email: Karen@quadrasales.ca

Exclusive Canadian Distributor
novanni®
www.novanni.ca

INNOVA FENCES
innovative fence systems

The Expert in Mesh Wire Fencing

- New innovative Fence and Gate solutions for residential, commercial and industrial purpose, like school yards, playgrounds, sport fields, parks and more...
- No pinching points - no risk of injuries, anti-climb design, durable long lasting.
- No maintenance required.

www.innovafences.com - info@innovafences.com
PO Box 8813, Canmore, Alberta, T1W 0C1
P: 403-609-1597, F: 403-679-1047



Keewatin Tribal Council

23 Nickel Road, Churchill Dr.
Thompson, Manitoba
R8N 0Y4

Education & Training

Ph: (204) 677-2341 Fax: (204) 677-0257



TABLE OFFICERS:



PRESIDENT
Barb Isaak
Assistant Superintendent,
River East Transcona School
Division



PAST PRESIDENT
Reg Klassen
Superintendent, Roving
River School Division



FIRST VICE-PRESIDENT
Mike Borgfjord
Superintendent, Seine River
School Division



SECOND VICE-PRESIDENT
Brett Lough
Assistant Superintendent,
St. James-Assiniboia School
Division



TREASURER
Cyndy Kutzner
Assistant Superintendent
Western School Division

DIRECTORS:



Celia Caetano-Gomes
Metro
Superintendent,
Winnipeg School
Division



Gwen Birse
Metro
Assistant
Superintendent,
Personnel Seven
Oaks School Division



Lorie Henderson
North
Superintendent,
Mystery Lake
School District



Scott Kwasnitza
Southeast Interlake
Superintendent,
Lord Selkirk School
Division



Tim DeRuyck
Southwest
Superintendent,
Turtle Mountain
School Division



Brian Gourluk
At Large
Superintendent,
Pine Creek School
Division



Donna Davidson
At Large – Rural
Assistant
Superintendent,
Mountain View
School Division



Ken Klassen
Executive Director



Amber Samson
Administrative
Assistant

Pauline Clarke
Metro
Chief
Superintendent,
Winnipeg School
Division

Krista Curry
South Central
Superintendent/
CEO,
Border Land
School Division

PFP

FLOOR CARE PRODUCTS & SERVICE

K'ARCHER®

makes a difference



204-326-2939

info@pfpsales.ca

www.pfpsales.ca



1559 King Edward St., Winnipeg, MB R3H 0R7
P: 204-632-5353 F: 204-632-5366

Head Office & Warehouse: 1602 Elliott St., Regina, SK S4N 6L1
P: 306-757-8545 F: 306-359-7017

*One of North America's largest Hobby, Craft & Event supply warehouses.
With 40,000 unique items, you're sure to find what you're looking for.*



Explore
Discover
Learn

QUARRY PARK
HERITAGE ARTS CENTRE

Quarry Park Heritage Arts Centre
Stonewall, MB
PH: 204 467-7980
Email: stoneqp@stonewall.ca
www.stonewallquarrypark.ca



For over 130 years we've been
providing you with education supplies...
Now as Christie's Office Plus we provide
Simply More.



CHRISTIE'S OFFICE PLUS
Winnipeg | 2166 Notre Dame Ave.
TEL (204) 489.3989 | FAX (204) 488.1746 | TOLL FREE 1-800-489-3989

A Manitoba Company...
COMMITTED TO MANITOBA EDUCATION





Priorities 2014 – 2015

Manitoba Association of School Superintendents

Equity and Quality



MASS believes:

- That a shared commitment to raising both equity and quality in Manitoba's public schools will lead to improved achievement for all of our students.
- That a conscious and persistent commitment to equity, system wide and across sectors, will also lead to poverty reduction, greater inclusion and an appreciation for the riches that diversity brings.
- That a purposeful and sustained commitment to quality education in every classroom will also increase the capacity for teaching, learning and leading throughout the system.

MASS Action / Focus Areas for 2014 – 2015

| Aboriginal Education | Mental Health and Wellness | Early Childhood Education |
|--|---|---|
| Host a three-session Aboriginal Education Institute in Winter 2015 with our educational partners, MASS, MSBA and MASBO | Co-host a provincial conference on Educating for ACTION: Mental Health and Wellness in November 2014 – MASS, Manitoba Education and Advanced Learning, Children and Youth Opportunities and Artbeat Studios | Review and rework the original MASS position paper on early childhood education - MASS Ad Hoc Early Childhood Education Committee |
| Liaise with FNMI partner groups, collect resources for implementation of MASS Call to Action in Aboriginal Education Position Paper, MASS Aboriginal Education Committee | Assess current mental and emotional health and wellness issues related to public schools and inform MASS membership - MASS Ad Hoc Mental Health Committee | Develop and present an updated Call to Action for early childhood education - MASS Ad Hoc Early Childhood Education Committee |
| Follow-up to 2014 Emamawi Witasoskemitowak Interorganizational Conversation on Aboriginal Education with educational partners, MTS, MSBA and others | Exercise Leadership on the OCCYMH Committee of Healthy Child Manitoba and work collaboratively towards a mental health framework for Manitoba | Maintain active MASS Representation on Provincial Early Childhood Committee |
| | Pursue intersectoral liaison with public and mental health organizations and agencies | |

Leading Learning

MASS believes that our mandate is to be leaders of learning, primarily in our respective local school systems and also in the broader domains of provincial, national and global public education. As leaders of learning:

- We will learn more about both essential and deep learning. We will work to identify essential learning for each and every child and ensure that this is achieved. We will pursue a better understanding of deeper learning and how we can prepare learners to go beyond our own learning.
- We will take responsibility for our own continuous learning and the learning of everyone we lead. We will create and foster enabling, supportive, inclusive and challenging environments within which we will consciously and persistently model our own active and visible learning.
- We will model learning that is based on robust research, tested through purposeful application in the field and evaluated using a wide range of meaningful data. Our findings will guide us in shaping policy and practice to achieve what is best for the children in our care.

MASS Professional Learning, Reading, Writing and Research for 2014 – 2015

| | | |
|--|---|--|
| 2014 Summer Institute 2015 Summer Institute 2015 November Conference MASS Book Club MASS Fall Journal 2014 MASS Spring Journal 2015 Educational Finance Paper Participation in Equity Study | Deeper Learning I with Simon Breakspear Deeper Learning II – TBA Enabling Learning Environments Reading List for Deeper Learning Pathways and Possibilities Defining Equity Funding of Schools, Budgeting Principles Policies and Practices of MB School Divisions | A Design Process for Innovation and Deeper Learning Learning for Social Activism and Citizenship Designing and Equipping Enabling Learning Spaces As selected by Simon Breakspear Career Preparation, Technical - Vocational Education Equity Enhancing Policies / Practices in School Division Membership discussion With Social Planning Council and Educational Partners |
|--|---|--|

By Adriano Magnifico



Career Development:

The Way to Engage High School Students

Whenever I drive north down St. Mary's road in St. Vital, I pass by two billboards directly across from one another. One is electronic and created on a computer somewhere with 10 different ads flashing in six-second intervals. The other, a single ad erected by manual workers on a single canvas.

Every day, drivers on St. Mary's Road witness what is happening to jobs and workplaces all over the world. Billboard workers, newspaper journalists, marketing executives, graphic designers, factory workers, farmers, even lawyers and accountants, have felt the unrelenting, often cold wind, of the changing labour climate in the information economy. Jobs in which baby boomers began their careers are either significantly transformed or, in some cases, gone entirely.

Our youth, many who are disengaged with school, are walking into a different labour environment than their predecessors.

Thoughtful career development processes offer relevant and purposeful ways to ignite the interests, passions and life potential of high school students.

21st century labour force realities

Geoff Hollingworth, a technology and networking expert with worldwide ICT company Ericsson, wrote, "If you were born any time before the last century you probably grew up, worked and died without ever noticing a significant difference between your first day and your last... Nowadays change doesn't occur over a lifetime or even over years but rather months. Today, if you complete a computer science degree, what you learned in your first year of study is obsolete by year three... The pace of change will only get faster."⁵

Ron Koslowsky, vice-president of the Canadian Manufacturers and Exporter Manitoba says that the day when students could drop out of high school to do manual work at the local manufacturing firm are long gone. "What we're really talking about is a new kind of workforce that can work with technology and apply problem solving capabilities in interdisciplinary contexts."

Research shows that skills mismatch—students seeking jobs with the wrong educational credentials and skills—exacerbate unemployment rates and force educated workers to take work that was once reserved for unskilled labour, which

includes the high school drop-out population.^{1, 6} The economy is churning out jobs, but workers lack the necessary skills to fill them.

Entrepreneurs, key drivers of market economies, figure prominently in a highly competitive global marketplace. North America, once the main incubator of entrepreneurial zeal and ideas, now must compete with emerging middle classes in countries such as China and India.

Overseas workers are not only able to complete bookkeeping, research and fact-finding tasks, but can also have completed jobs in an inbox before a western work office starts its day.

Do high school graduates know what they are walking into?

The information economy: Skills and innovation rule

Most educators still teach for the 20th century student. The trouble is, we are no longer in the machine age, an era when education centered on conformity, standardization and assembly-line-style skills. This industrial-age legacy continues to reverberate throughout classrooms as students sit in rows, move to the tick of a clock, take direction from teachers at the front of rooms,

follow strict regulations and engage in compartmentalized content.

The workplace is fast becoming a right-brain environment⁷ in which all employees are empowered to think and solve problems. One only need witness a Winnipeg Duha Group 2:00 p.m. factory floor huddle (when workers gather to discuss and implement improvements in the plant sans management) to truly grasp the new, empowered, problem-solving worker.

Tony Wagner, 21st century thinker and expert-in-residence at Harvard University's Innovation Lab, has identified skills that students must learn in school to participate effectively in an innovation economy:

- Critical thinking and problem-solving;
- Collaboration across networks;
- Agility and adaptability;
- Initiative and entrepreneurship;
- Accessing and analyzing information;
- Effective oral and written communication; and
- Curiosity and imagination.¹²

In an economy that may require workers to become entrepreneurs and create their own jobs, creative and innovative skills sets have never been at a higher premium.^{8, 17}

Manitoba's current career development strategy

The province's online *Your Future... Your Way, Manitoba's Career Development Strategy* process offers a progressive series of steps and activities based on key milestones, including evaluating self, exploring options, setting goals and putting plans into action. The Manitoba Mentors program, in the midst of a process and organizational overhaul, offers educators and students opportunities to interact with businesses in various industries. The Grade 9 to 12 Career Development electives offer classroom opportunities for schools to deliver career programming.

Beverlie Stuart, executive coordinator of career and workforce development initiatives, asserts that "a workforce development initiative that connects education to industry, emphasizes lifelong learning and builds essential skills in students is important to build the workforce of the future. We are fortunate

in Manitoba to have such a robust and participatory sector council network that wants to engage with young people."

Career development: A way to engage students

Research suggests that up to 50 per cent of high school students are bored with course content and its lack of relevance to their lives.^{9, 11, 14, 16} They comply with the institutional conventions of school—attendance, regulations, test-taking—but lack a deeper intellectual interest in course content and in the kind of thinking that drives creativity and innovation.

Of course, once students become disengaged with learning, similar attitudes and behaviours begin to manifest themselves in post high school life, particularly in workplaces. Research regularly cites disengagement in workplaces, with some statistics at alarming levels, where up to 75 per cent of workers express dissatisfaction with their working life.^{3, 11}

Career development is a way to ignite student engagement in schools; the topic itself is intensely personal and directly relevant to a student's life path. Research suggests that career education may foster student engagement if students are encouraged to reflect on personal experiences, abilities and personal attributes, and encouraged to participate in career-related activities related to their needs and interests.¹³

A growing body of research cites the positive effect of career education programs on engagement in high school, junior high and elementary school.

Building career development for all students

For a long time, educators have assumed that students will eventually figure out their life path on their own. Disengaged learners could leave school and find work at a decent middle class wage. But today's level of classroom disengagement and an information economy that does not play by the old rules means schools need to rethink their career preparation paradigms. To build systemic career programs in high schools, educators need to act on the following:

- 1. Mandate self-awareness conversations.** All courses in all disciplines

should have opportunities for students to dialogue with teachers and industry professionals about personal potential, course relevance, skills development and career planning. Students should leave every course they complete with a sense of why the course exists, what skills the course develops and who values the skills in professional communities.

- 2. Network with the community at large.** Internships, job shadows, mentorships, volunteer work, workplace visits, conferences, workshops, part-time jobs, summer jobs, interdisciplinary projects and other creative activities must get students into the community to test their skills and to dialogue with professionals. The Winnipeg Chamber says that workers can expect a dozen job changes in their lifetimes. Students need to connect with a larger support group network than is available within school walls.
- 3. Emphasize skills.** Employers, more than ever before, are looking for specific skills that students can articulate about themselves and how their skills can add value to job sites. How many teachers are aware of Workplace Education Manitoba's 9 Essential Skills for workplace success¹⁵ or the Conference Board of Canada's Innovative Skills Profile?²² These are great starting points.
- 4. Equip key teachers with labour market information.** Students need current labour market information about where the jobs are and what skills are in demand. Are educators aware that the Government of Manitoba intends to grow Manitoba's workforce by 75,000 by 2020⁴, mostly in apprenticeship and trades?
- 5. Embrace social networking and digital tools.** The opportunity to help students engage personal and career planning through social media is staggering, especially since the mobile world is where learners live now. Using social media in courses offers potential for community collaborations, digital applications of projects, personal branding and workplace networking. Schools continue to become more proactive about using social media in their learning environments.

6. **Inject entrepreneurship programming.** With disappearing lifetime jobs and encroaching global competition, workplaces have never been more open to receiving new ideas and to challenging all assumptions. Insisting that students develop problem-solving mind-sets will not only stimulate potential start-ups, but also shape future leaders for existing organizations.
7. **Seek out student voice.** Many adults with analog-leaning tendencies continue to make most decisions for students, both at the macro and micro

levels of education. Using outdated Web 1.0 tools or running 80s style career symposiums will not engage the generation Y millennial or the emerging generation Z cohort. Students will engage in school programs when they have a voice in the shape, focus and form of initiatives meant for their learning and when they understand how relevant the work is to their personal growth and future.

8. **Encourage re-invention in students.** With long term work in a single job becoming a rarity and career shifts

the norm, students will need to develop the adaptive skills to re-invent themselves and the confidence to understand that such re-tooling will be a good and exciting prospect in their lives.

Help students connect the dots

The billboard scenario reminds us that the way students work in the future will be decidedly different than the way their fathers and mothers earned a living.

The billboard workers will not disappear, but will work differently. Somebody, somewhere, has to write the algorithms, design those images flashing on that screen, think about how to connect those images to a drive-by audience and construct the physical infrastructure to deliver those messages.

Gavin Harmacy, former career internship program student and co-founder of the crowdfunding site www.sponsormonster.me in Calgary says, "Soon, your phone will connect to the billboard and you'll only see customized images that relate to needs in your own life—your buying habits, hobbies, regular driving routes and preferences. The world is moving away from a one-size-fits-all paradigm and education needs to keep up."

Schools need to do some soul-searching. Students sitting in rows, writing tests and taking a two-month break from school may have fit the 20th century career-preparation paradigm nicely, but not so today.

Career development is no longer about a solitary meeting with the guidance counsellor. Students need support to connect dots between courses, part-time jobs, school extra-curricular activities, personal needs, post-secondary education of all kinds, skills development and networking.

The work world is dynamic and ever-evolving. Systemic high school career programming should be the creative link that helps students connect to their potential and realize their dreams for the future. ■

Adriano Magnifico is the Coordinator of "Learning to 18 Student Engagement" in the Louis Riel School Division.

For a complete list of references, go to www.mass.mb.ca.



At Innovative Medical Supplies we specialize in Bracing, Home Health Care Supplies and First Aid Supplies. We can direct bill to MB Health, Blue Cross, Greenshield, MPI and The Workers Compensation Board.

Henderson Location

217 Henderson Hwy, Winnipeg, Manitoba R2L 1M1
Ph: 204-663-6633 Fax: 204-663-2452

Innovative Medical Supplies - Brandon

620 Dennis Street-First Street Plaza, Brandon, Manitoba R7A 5E7
Ph: 204-727-0300 Fax: 204-725-2575

Innovative Medical Supplies - Assiniboine

633 Lodge Ave. - Assiniboine Clinic, Main Level, Winnipeg, Manitoba R3J 0S9
Ph: 204-896-1990 Fax: 204-896-1996

At Innovative Therapy Solutions we have 4 Certified Athletic Therapists to help get you better. You don't have to be an athlete to see an Athletic Therapist! We offer strength, conditioning and orthotics. We can direct bill Blue Cross, Greenshield, MPI and The Workers Compensation Board.

Innovative Therapy Solutions

217 Henderson Hwy, Winnipeg, Manitoba R2L 1M1
Ph: 204-663-6633 Fax: 204-663-2452

www.innovativemedicalsupplies.com





Nos histoires Notre musée
Our stories Our museum

En plus des tournées guidées du musée, nous offrons une variété de programmation:

- Programmes et activités basés sur le curriculum
- Programmation familiale en été
- Camps d'été (de jour) pour les enfants
- Choix de langue des programmes, français ou anglais

As well as guided tours of the museum, we offer a variety of special programming including:

- Curriculum based tours and activities during the school year
- Summer programs for families
- Children's summer camps
- Program language choices, French or English



494, Avenue Taché, Saint-Boniface, Manitoba R2H 2B2
Phone: 204.237.4500 info@msbm.mb.ca

msbm.mb.ca



transfinder

▶ PLAN, PREPARE & RESPOND

With Infofinder mobile you can manage all of your transportation and routing needs in the palm of your hand and be prepared in the event of an emergency. Easily track and mitigate incidents and interact in real-time with emergency personnel.



800.373.3609 | transfinder.com

Fehr-Way Tours

Your Leader in Student Travel

Specializing in full service motor coach and air packages throughout North America.



Fehr-Way Tours is affiliated with Beaver Bus Lines



6-1050 Henderson Hwy - Winnipeg, MB - R2K 2M5
Ph 1-800-263-3691 - Fx (204) 334-2070
www.fehrway.com - info@fehrwaytours.com



Holiday Inn

WINNIPEG AIRPORT WEST

What is waiting for You

- 226 tastefully appointed guestrooms and suites
- State of the art fitness center, salt water pool and hot tub
- Complimentary high speed wireless internet
- Complimentary airport shuttle service
- Free under ground heated parking
- Newly renovated Executive Boardroom
- 9000 square feet of meeting space
- IHG Rewards Club

Holiday Inn Winnipeg Airport - West
2520 Portage Avenue
Winnipeg, MB R3J 3T6
204-885-4478 or toll free 1-800-665-0352
info@airportwest.com
www.holidayinn.com/winnipeg-arpt



POLY-MOR 
Canada Inc.

HARNESSING THE POWER OF POLYMERS

- We lift, align, under-pin & stabilize settled slab-on-grade structures
- We densify and stabilize weak base soils to increase bearing capacity
- We fill voided areas such as sink-holes, wash-outs, etc.
- Infrastructure repair

Team **Poly-Mor**



Serving the Residential, Industrial, Institutional & Municipal Markets

MINIMAL DISRUPTION! COST EFFECTIVE!

1-866-887-3835 | www.poly-mor.ca



Design with
community
in mind



Steinbach Regional Secondary School - expansion
art.martin@stantec.com stantec.com

Career and Technology Studies

By Brenda Mutcher

In rural Manitoba, schools face many challenges. One is providing relevant and engaging learning opportunities. The small populations translate to small school and class sizes. This can be problematic. One of the ways the southwest region of Manitoba addressed this challenge was by creating a program called Career and Technology Studies (CTS).

What is CTS?

It is a unique way to have students enrich their career options by gaining experience in a career of their choice. There are three parts to CTS in the Southwest Consortium: career internship, career path management and technology infusion.

Career internship might be more familiar. Students, with the help of their school based CTS teacher and career guidance advisor, select a career path. The CTS teacher assists the student in partnering with community sponsors in that career path. The teacher completes a training agreement between the student and the community sponsor for a CTS high school credit.

The CTS teacher monitors the students and does evaluations with the community sponsor to ensure the training agreement is being met. When completed, the student presents a portfolio with evidence of their learning. Grade 11 and 12 students have the opportunity to acquire eight high school credits through CTS. Students work in their area of interest through the career internship. They are then able to achieve a dual diploma after completion of all eight credits.

Career path management is a way to expose students to careers. They are designed to enrich course curriculum while exposing students to career information and hands-on activities on the job.

Career path management starts in the classroom when the teacher networks with experts in particular areas and uses enrichment activities to pique the interest of students. It is then followed by a full day where students get to do various

hands-on tasks that tie directly into the curriculum and a career path. The career path management helps students answer the question, "Why do I have to learn this?"

Having the most up-to-date equipment and technology for every career path is not financially viable for schools. Through career internships and career path management, students are able to gain skills on the latest technology by partnering with community industries.

For example, while working on the CTS Railway Bridge project at Miami School, Assiniboine Community College brought sonar equipment that students could use to create a topographical map of the valley where the Canadian Fossil Discovery Center has a dig site.

While at a CTS internship, students get to use the latest in industry technology. This proficiency and exposure to the latest technology will better prepare them for the job market and post-secondary.

What makes CTS so popular?

The strengths of CTS is that it is student driven. This program has been developed for students of all academic levels. Students have an opportunity to work in a wide array of career paths.

It uses the strengths of its communities to enrich students' futures and is for all students entering into a variety of careers. The CTS program is providing students with an increased awareness of a career pathways. It has boosted their self-confidence and independence, and enables the student to move ahead and explore opportunities while in high school, post-secondary and into their professional adult lives.



Students enjoy working together outside the traditional classroom.

Southwest Consortium

The career and technology studies program started in the Prairie Rose School Division 20 years ago. The Southwest Manitoba CTS Consortium was then formed through partnerships with three other school divisions; Prairie Spirit, Turtle Mountain and Southwest Horizon.

This partnership strengthens the opportunities that divisions can provide to students by increasing resources.

The Southwest Consortium team consists of CTS teachers, CTS division coordinators and a regional coordinator. This relationship allows divisions to be more efficient and innovative in the way they deliver the CTS program.

For more information, contact Brenda Mutcher at bmutter@prsdmb.ca and visit ctsmb.blogspot.ca. ■

Brenda Mutcher is Regional Coordinator for the Southwest CTS Consortium.

Career and Technology Studies partners strive for an education that is directed towards the individual needs of each and every student.

Vocational Education in Park West School Division

By Stephen David

There has been a recent resurgence of career and technology education in Park West School Division. This change reflects more of an intentional focus on implementation rather than anything incredibly innovative. Many of the elements of our programming mirror what occurs in other divisions across Manitoba.

We have tried to fill gaps in vocational education by any means possible. Where there are no programs, we are adding them. Where there are existing programs, we are enhancing them. Where there are barriers to program access, we are either removing them or going around them.

Vocational education is a shared priority for our school division, our First Nation partners and our communities. The general outcome of this focus on career development and technology education is rather simple: Students in Park West School Division will have access to increased opportunities in vocational education.

As a small rural school division, it has been challenging to meet the career and vocational needs of students over the years. Our communities are small in size and offer limited work placement and career mentorship opportunities. Our schools are also limited in terms of vocational equipment and facilities. In fact, we only have traditional vocational labs in four of our 14 schools.

Despite the challenges, we are doing whatever we can to expand vocational course options and career experiences for students. Our board of trustees has shown their commitment by making career development and vocational education a priority and by supporting a wide range of initiatives

and strategies. Our communities have become tremendous resources for both vocational placements and for collaboration regarding regional training needs. Finally, Manitoba Education has provided considerable financial support through a variety of grants.

Components of vocational education

The Park West Career Development and Technology Education programming focuses on two components:

1. **The Career Development** aspect focuses on implementing changes, including programming and administrative, that help students understand their potential career pathways and plan for post-secondary education and training opportunities.
2. **The Senior Years Technology Education** component is used to promote enhanced awareness of technical vocational education in the division and to ensure that programs are relevant to anticipated labour market opportunities and/or credentialing opportunities.

Specific impacts

The Park West Career Development and Technology Education plan is intended to have the following eight impacts.

1. Improve vocational facilities and program options

The focus on career development and technology education allows for the introduction of programs that would not be accessible using existing school budgets. Recently there has been significant program development, both at an individual school level and from a divisional perspective.

2. Provide competency-based outcomes

The learning skills within the Park West Career Development and Technology Education plan are grouped into two sets:

- i. **Fundamental skills:** the basic skills for study and employment in career and technology; and
- ii. **Personal skills:** the basic skills for personal effectiveness and growth.

3. Introduce more students to career development and technology education and training

Our divisional vision is to provide access to high quality education programs for our students. One priority area is the development of vocational centres of excellence throughout the division. This involves establishing vocational programs at specific high schools and busing students to these centres.

Birtle Collegiate houses the divisional building construction program that has existed for several years. This program was developed in 2006 through provincial funding for technical vocational initiatives. A health care aide program was added in September 2014 while our new divisional cosmetology program will be based in Waywayseecappo.

These programs are intradivisional in their inclusion of all six area high schools. These programs are also interdivisional. Similar to our current construction program at Birtle Collegiate, the new programs will be open to students from our First Nations partners as well as the students at the Division scolaire franco-manitobaine (DSFM) school in St. Lazare.

We are also developing a framework for a career technology studies program for divisional students. Career and Technology Studies (CTS) is a complementary program designed for Manitoba secondary

school students. As a program of choice, CTS offers all students important learning opportunities to:

- Develop skills that can be applied in their daily lives, now and in the future;
- Refine career planning skills;
- Develop technology related skills;
- Enhance employability skills;
- Apply and reinforce learning developed in other subject areas; and
- Prepare for transition into adult roles in the family, community, workplace and further education.

The course structure of CTS enables schools to design unique programs that meet the needs of students and take advantage of community resources. Developed across levels rather than grades, CTS has multiple entry points and provides secondary students with access to a common curriculum. Community-based internships for students in Grade 11 and 12 complement traditional high school programming and provide on-the-job training while they are still in school.

We are also expanding the industrial arts and home economics programs at Major Pratt School, Birtle Collegiate and Waywayseecappo to include middle years students from each of our elementary schools. Students from schools lacking facilities will be bused to other schools on a regular rotation. We are also continuing our involvement in the Career Trek program which provides vocational opportunities for Grade 5 and Grade 6 students.

4. Create stronger links and educational pathways for students to technical vocational education, High School Apprenticeship Program (HSAP), apprenticeship, post-secondary education and opportunities in trade-related occupations

The career and vocational training that Park West students receive and the equipment that they use is similar to what they would encounter in multiple programs at post-secondary institutions and in a variety of workplaces. For example, one of our high schools recently purchased an Epilog Laser system which is recognized as one of the leaders in the laser engraving, cutting and marking industry.

The fact that students are interested in the trades has been demonstrated by

HSAP. Park West had three students involved in HSAP in 2010. Under the direction of our HSAP/vocational coordinator, that number has increased to over 30 active participants on an annual basis. In 2013, we reached a divisional record of 37 HSAP participants.

Entrepreneurship is extremely important to the division as well. Teaching this subject in combination with skilled trades allows the students in the division to learn about creating their own jobs. Major Pratt School is one of the Canadian schools delivering the entrepreneurial program through the Paul Martin initiative.

The goal of the Aboriginal Youth Entrepreneurship Program is to encourage youth to stay in school where they can develop the attitudes, knowledge, and skills necessary to achieve success in secondary school, postsecondary education or training, the workplace and daily life. Students are given entrepreneurial experience and the opportunity for business ownership.

5. Enhance awareness of technical vocational careers

The communities in Park West School Division, like many others in Canada, are experiencing a serious shortage in skilled trades people. Our career development and technology education initiatives will enable students to develop an awareness of regional technical vocational careers.

6. Facilitate program articulation between career development and technical vocational programs

The Park West School Division Career Development and Technology Education plan will allow for the articulation of programs beyond single course offerings to comprehensive program clusters. The previously mentioned health care aide program will provide students with both high school credits and the Assiniboine Community College Comprehensive Health Care Aide certificate. Graduates of the cosmetology program will receive industry level certification.

7. Ensure program currency and relevance to labour market needs

Park West includes several communities that rely heavily on the trades sector for growth and development. In recent years, several additional companies that

require qualified trades people have moved into the area. For example, components of our Career Development and Technology Education plan will enable regional youth to prepare for careers in the energy and mines industries that are prevalent in this area of Manitoba and Saskatchewan.

8. Improve the image of technical careers

Through involvement with the Park West Career Development and Technology Education program, students will develop positive attitudes regarding both industrial arts programs and technical vocational careers.

Consultation

The development of the Park West Career Development and Technology Education plan included industry, post-secondary and community-based consultation. Vocational education was identified as a key divisional priority during our last strategic planning session with students and community partners.

The Career Development and Technology Education plan also addresses articulation with industry and business and post-secondary partners. As stated previously, Park West has a formalized relationship with Assiniboine Community College. As part of this partnership, several articulation agreements have been developed in a variety of course and program areas.

Educational partners in our region have agreed that there is a shortage of skilled trades people in our area and limited opportunities for students to develop vocational skills. In 2012, consultations were held with both students and businesses within the region to further identify vocational educational and labour force needs.

Partnerships

The Career Development and Technology Education programs in Park West have been built upon partnerships. These include extremely positive working relationships among schools, with regional businesses and industry, and with other school divisions.

One essential partnership involves the sharing of a full-time vocational

education coordinator with Mountain View School Division. Originally hired through a grant to support high school apprenticeship facilitators, our coordinator Lindsay Rubeniuk now has oversight for career and vocational education in both divisions.

The Career Development and Technology Education programs in Park West will be accessed by students from other high schools, including those students from Waywayseecappo First Nation. Park West and Waywayseecappo have a strong history of collaboration.

Over the past five years, we have worked together to articulate plans for an enhanced educational partnership. We have expanded our educational agreement to include a full partnership of all education services. This includes the nursery to Grade 8 students at Waywayseecappo Community School as well as high school programming for Grade 9 to 12 students at Major Pratt and Rossburn Collegiate.

During our partnership, we have cooperatively delivered educational services to the children of

Waywayseecappo. This new partnership represents a significant advancement beyond our previous educational service agreement.

Expanding vocational education opportunities is an essential component of the partnership between Waywayseecappo First Nation and Park West. We already have provincial high school students traveling to the First Nation school for vocational courses in wood technology and home economics. The partnership has also received funding through the Paul Martin Foundation to engage aboriginal students in vocational programs and teach them the importance of becoming business entrepreneurs.

Major Pratt School was recently a site for the delivery for Assiniboine Community College's applied construction program. The college had a vocational trailer on site and their instructor used the school's classrooms and industrial arts labs.

Park West also has a positive relationship with Red River College. Most recently, we partnered in the delivery of an introduction to trades program to Waywayseecappo residents using a mobile lab that is set up at our school in Rossburn.

Summary

Park West School Division has made career and vocational education a priority for all students. Our implementation model is not really that innovative. Many of the things that we do may be found in schools and divisions across Manitoba. We simply chose to improve programming options for students and found a way to ensure that it could happen. ■

Stephen David is the Assistant Superintendent of Park West School Division.

The Park West Career Development and Technology Education programs have been built upon partnerships. These include extremely positive working relationships among schools, with regional businesses and industry, and with other school divisions.

PINCHIN CAN HELP Understand and Manage Your Natural and Built Environments

Providing Engineering, Consulting, Project Management & Training in:

- Building Science
(Building Condition Assessment, Reserve Fund Studies, etc.)
- Emissions Reduction & Compliance
- Environmental Due Diligence & Remediation
- Environmental Laboratory Services
(Asbestos, Mould, Odour, Radon)
- Indoor Air Quality & Microbial Contamination
- Hazardous Material (Asbestos, Lead, Mould, Radon)
- Occupational Health & Safety

pinchin.com | 204.452.0983



Jason Combe

Operations Manager

54 Terracon Place
Winnipeg MB R2J 4G7
jcombe@pinchin.com

Help Change Someone's Life... Teach them to Communicate with the Picture Exchange Communication System (PECS)

What could be more valuable than giving your student the ability to communicate? PECS uses picture exchange to develop communication skills in children and adults with autism and other learning difficulties. Easy to access, affordable to implement and evidence-based as one of the most effective interventions.

What you will learn by attending a PECS Training:

- How to start implementing PECS immediately and properly
- How to develop effective educational environments
- A review of visual strategies useful for communication
- The 6 phases of PECS - where to start and when to move on
- Strategies for motivating your student to communicate
- Transitioning from PECS to other communication modalities



For more info about attending a PECS training or hosting your own workshop visit www.pecs-canada.com or call 905 - 637 - 7327

PECS is an opportunity to open the door to spontaneous communication

Happy Birthday, RTAM!

Retired Teachers' Association of Manitoba

"Our strength is in our collective voice and our growing membership."

This year the Retired Teachers' Association of Manitoba (RTAM) celebrates its 25th anniversary. It celebrated with a happy birthday theme at the Annual General Meeting in Winnipeg in May. Congratulations to all the volunteers who lead this organization for the benefit of retired teachers and the community!

Since its inception in 1988, RTAM has been a strong voice for retired teachers throughout the province. The association, together with 20 local chapters, is working to serve approximately 8,500 retired teachers across Manitoba and Canada. The association has been, and will continue to be, concerned with the welfare and interests of retired teachers.

The benefits of belonging to RTAM include:

- Group insurance plans;
- Pension support and advocacy;
- Political lobbying;
- Information and news;
- Social connections and activities;
- Liaison; and
- Being part of a strong voice representing retired teachers.

The association also sponsors pre-retirement seminars for teachers each spring to provide relevant information on choices to be made at retirement with the goal of enhancing their quality of life and financial security.

Contact: Retired Teachers' Association of Manitoba | 206 - 1555 St. James St. Winnipeg, MB R3H 1B5

Office/Voicemail Phone: 1-204-889-3660 | Manitoba Toll-Free: 1-888-393-8082

E-mail: rtam@mts.net | Website: www.rtam.mb.ca

The RTAM office is open Monday to Friday, 9:00 a.m. to 1:00 p.m.

Phone messages can be recorded at all times of the day.



Your Complete Lighting Solutions Provider
and Electrical MRO Supplier.

Visit MIDWEST.WESTBURNE.CA or any of our five Manitoba branches

WINNIPEG · ST. BONIFACE · BRANDON · DAUPHIN · THOMPSON



<http://www.mbascd.ca>

email: manitobaascd@outlook.com

phone: 204-813-1695

Manitoba ASCD

Focus on Mathematics Learning in 2014-15

Greg Tang - Thursday, October 2, 2014

Lucy West - Wednesday, February 11, 2015

Marian Small - Thursday, May 14, 2015

Go to <http://www.mbascd.ca> for more information and to register.

Learn

Teach

Lead

Building Opportunities for Manitoba's Youth

Apprenticeship Manitoba

The apprenticeship and certification system in Manitoba is growing. The number of active apprentices has doubled over the past decade to over 10,000 in more than 55 trades.

Apprenticeship Manitoba coordinates the training and qualifications system that delivers structured, workplace-based skills and technical training to apprentices, leading to journeyman certification. Additionally, Apprenticeship Manitoba facilitates certification through trades qualification for experienced tradespersons who seek formal certification.

Apprenticeship Manitoba also supports the Apprenticeship and Certification Board by helping it reach its annual strategic plan goals. In its role within this partnership, Apprenticeship Manitoba does the following:

- Promotes trades training and certification to industry standards;
- Coordinates information and planning for the designation of new trades;
- Develops competency standards and curricula in cooperation with Manitoba industry and other provincial and territorial apprenticeship systems;
- Processes requests for the accreditation of training programs to designated trade standards;
- Helps underrepresented groups access apprenticeship training;
- Provides counselling supports on trades careers and certification matters; and
- Performs other essential support services to facilitate apprenticeship training and certification.

An ongoing priority is the engagement of youth. Apprenticeship Manitoba, and the Apprenticeship and Certification Board are committed



Instructor Derek May leading the youth camp participants in their meal preparation.



Brandon East NDP MLA Drew Caldwell attends a site visit of the youth camp to see first-hand the hard work of participants.

to developing ways to increase young Manitobans' awareness of the skilled trades and the opportunities available to them. The following priorities and initiatives outline some of the opportunities that focus on youth.

The apprenticeship and certification board

The Apprenticeship and Certification Board provides a governance and leadership role within its mandate to coordinate a relevant, accessible and responsive apprenticeship and certification system in Manitoba. The board creates an annual strategic plan based on consultation with stakeholders to identify issues that impact the apprenticeship system.

One of the board's ongoing strategic priorities is increasing young people's awareness of and participation in the apprenticeship training system. The board is committed to engaging with youth, educators and parents to promote skilled trades as a career choice.

The board's Youth Action Plan was first introduced in 2012-2013 and outlines strategies to identify best practices

among provincial approaches that engage youth with the apprenticeship model.

The plan includes identifying partner groups within organizations that are involved with youth or youth programming for information sharing and strategizing purposes. Partnerships are being developed with other government departments to harmonize common goals with regard to youth programming.

High School Apprenticeship Program

The High School Apprenticeship Program (HSAP) provides opportunities for high school students to obtain paid work experience for school credit. The program is designed to build awareness and interest in the skilled trades and to facilitate entry into a post-secondary apprenticeship.

It is available in virtually every designated trade and the hours worked count toward a post-secondary apprenticeship program after graduation. Eligible apprentices receive a tuition exemption for one level of technical training for

every 220 hours of work experience gained through HSAP.

As of April 2014, there were 1,402 active HSAP participants, which was 494 more than the previous year. The program not only provides early entry to the trades, it provides a pathway for students to explore their career interests while acquiring valuable skills.

The program's success depends on important partnerships with stakeholders, including industry employers and educators. Through the HSAP Professional Learning Group, educators and school division representatives discuss new ways to increase youth participation in the skilled trades. This year, Apprenticeship Manitoba undertook some changes to improve the HSAP experience based on feedback received from educators and other stakeholders.

One identified concern was that the application process is complicated and lengthy. The 10 page Apprenticeship Agreement has since been revised so it is streamlined and user-friendly. The new four page agreement can be used by HSAP students rather than using a separate application form. This will also make it easier for HSAP students to transition into a post-secondary apprenticeship.

Another concern was that the fees associated with changing trades are a barrier for some students wanting to explore different options. As a result, Apprenticeship Manitoba waived the fee for change of trade and change of employer for HSAP participants.

Building for tomorrow

As part of the youth engagement strategy, the Building for Tomorrow youth pilot program was launched in July 2014. Building for Tomorrow trade camps were created to provide a collaborative learning setting for youth in underrepresented groups in the skilled trades.

These groups include aboriginal people, visible minorities, new Canadians, women, persons with disabilities and persons facing socio-economic challenges.

Over 135 youth participated in one of the 11 trade camps that were delivered in partnership with Red River College, Career Trek, Assiniboine Community

College, the Piping Industry Technical College, Manitoba Institute of Trades and Technology, Winnipeg Aboriginal Sport Achievement Centre, the Construction Sector Council, la Division Scolaire Franco-Manitobaine, le conseil de développement économique des municipalités bilingues du Manitoba, Red River Technical Vocational Area, Standard Aero and University College of the North.

Girls Exploring Trades & Technology Camp was a successful camp offered twice at Red River College from June 30 to July 11, 2014. Eighteen girls between the ages of 12 to 14 were introduced to a variety of non-traditional trades.

All of the participants received hands-on learning experiences working with wood materials, screws, nails, hand and power tools, and paint. They constructed walking stilts, a trinket box and a non-motorized go-cart that they raced at the end of camp.

This was a major success for youth and for introducing girls to trades that have been traditionally male-dominated. Camps such as this help spark interest among young women to increase their representation in non-traditional trades and make the skilled trades more diverse.

Assiniboine Community College's Cook Camp was successfully delivered over the course of 10 days. Fourteen participants aged 12 to 14 received a glance into the role of a certified cook.

They were exposed to hands-on and theoretical learning experiences, including kitchen rules and safety, introduction to equipment and utensils and food quality selection. They planned a dinner menu then prepared and served the meal to guests.

"They've picked up a little bit of life skills in addition to technical skills," noted instructor Derek May, who also teaches culinary arts at Crocus Plains Regional School. May says participants improved their technical and interpersonal skills.

Other camps included carpentry, aircraft maintenance, hairstylist, esthetician and piping. Participants were encouraged to learn and explore these trades in a practical, applied learning setting in which hands-on activities were

completed under professional instruction from a qualified instructor.

At the end of the camp, participants had the opportunity to showcase their new skills to family members and were presented with a certificate of completion from Apprenticeship Manitoba. Participants were also able to attend information sessions to learn more about HSAP.

The most important thing to note about these camps is the feedback and experience received by the participants. One youth from a carpentry camp said, "I like that it was hands on, not just lectures about carpentry. Also, the instructors were very friendly and helpful."

This new pilot program has been a tremendous success, and it is anticipated that an enhanced version of the Building for Tomorrow program will continue in the summer of 2015 with more service providers, featured trades and youth participants.

PATHS

In partnership with Manitoba Education and Advanced Learning, Apprenticeship Manitoba is currently implementing a pilot program called Provincial Accreditation Through High Schools (PATHS) as the new recognition process for skilled trades-related technical training modules offered by high schools.

It changes the process for accreditation by making it easier for high schools to receive dual credit while maintaining current standards and requirements. Schools that continue to meet current requirements will continue to be eligible for and receive accreditation through PATHS.

The program was implemented September 2014 and applies to the carpenter and automotive service technician trades for the initial rollout in 2014-2015. Any newly requested accreditation programs will also be included in the initial rollout. It will be applied to all other trades in 2015-2016.

The new PATHS programs will cover material related to apprenticeship programs while in high school and also provide credit towards completion of an apprenticeship. For example, if you complete the automotive service

GET SMART

...about electricity
to increase
brainpower!



FREE admission and parking!



Walk-ins welcome or
book a guided tour
Open:
Mon to Thurs 1 - 4 pm
Call 204-360-7905
for details.
or visit:
hydro.mb.ca/museum

680 Harrow Street
Winnipeg, MB

November 24th, 2014

**The Canadian
Safe School
NETWORK**

THE MANITOBA SAFE SCHOOLS CONFERENCES 'Students at the Centre'



Winnipeg, MB
Victoria Inn & Conference Centre

In addition to dynamic
keynote speakers,
interactive workshops and
panel discussions, this
year's conference will
provide a unique
opportunity for metro,
rural and northern
divisions to showcase the
exciting, evidenced based
programs that have been
implemented in their
schools.

Presented in association with:



**SAFE SCHOOLS
MANITOBA**

www.canadiansafeschools.com

technician PATHS program, you will receive credit for level one technical training when you register as an apprentice in the post-secondary automotive service technician apprenticeship program.

Apprenticeship Manitoba will continue to provide schools with technical training standards and instructor requirements. In addition, Apprenticeship Manitoba will conduct facility audits within the first year of accreditation and then on a five year cycle thereafter.

Under the new agreement, Apprenticeship Manitoba will provide final exams for schools to administer to eligible students at the end of their program. Final exams are optional for eligible students and those who pass with a minimum of 70 per cent will receive a certificate from Apprenticeship Manitoba giving credit toward a post-secondary apprenticeship program.

Student apprenticeship work experience co-op

The Student Apprenticeship Work Experience Co-op is a pilot program that launched in July 2014. It was designed to help student apprentices find paid training opportunities in their trade within the Manitoba government. High school and college students received 10 week placements in the Manitoba government in which they were supervised by a certified journeyperson.

This pilot program served as a valuable opportunity for high school students to explore various skilled trades' careers within the Manitoba government and to see the many opportunities careers in the trades can lead to. Participating departments included Manitoba Infrastructure and Transportation, and Manitoba Housing and Community Development.

Both departments provided placements for students to gain experience in the carpenter, plumber, electrical, landscape horticulturist and heavy duty equipment technician trades. In support of Manitoba's labour market strategy, it is anticipated that the program will continue in the summer of 2015 and will be integrated with existing Manitoba government student hiring practices. ■



**Pupil Transportation
Specialists**

School Bus Contractors
Bus Charters

(204) 633-2022

School Bus Maintenance
School Bus Inspections
Used Bus Sales
Preventative Maintenance
Programs



www.vitaltransitservice.com

Email: sales@vitaltransitservice.com

Olympia
ski & cycle

Cross Country Ski Specialists since 1979

Specializing in cross-country ski &
snowshoe supplies.

As well as all your biking needs.

1813 Portage Ave.

1-877-497-7444 or 888-4586

MON-FRI 10:00am-9:00pm SAT 10am-6pm Sun 1pm-5pm

www.olympiacycle.com

scot@olympiacycle.com

LEANDRE G. BUISSE B.A., B.S.W., L.L.B.
Barrister and Solicitor/Avocat et Notaire

**FAMILY LAW
ROBERTSON SHYPIT SOBLE WOOD**

202-1555 St. Mary's Road
Winnipeg, MB R2M 5L9
P. (204) 257.6061 F. (204) 257.0215
Direct Line (204) 257.9340
www.rsswlawyers.com

Learn more about Dyslexia

We have:

- Certified Tutors
Seminars

- Certified Dyslexia Testing Specialist

- Certified Math Tutors

- Certified Irlen Screeners

We offer:

- Full and half day information

- Training

**KC Dyslexic
Learning Centre**

205-420 Des Meurons St. | www.kcdlc.com | (204) 253-3693



**CROSS LAKE
EDUCATION AUTHORITY**

P.O BOX 370

Cross Lake, MB R0B 0J0

Email: ghalcrow@clea.mb.ca

Telephone: (204) 676-2917

Fax: (204) 676-2087

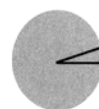
GREG BRADSHAW, CA

Direct: (204) 956-9406

Fax: (204) 956-9424

Cell: (204) 792-9006

E-mail: gbradshaw@craigross.com



CRAIG & ROSS

CHARTERED ACCOUNTANTS

1515 - ONE LOMBARD PLACE, WINNIPEG MB R3B 0X3
www.craigross.com



WWW.BELLEFOSH SIGNS.CA

• P: (204) 633-0738 • sales@bellefosh.ca
• F: (204) 694-5594 • www.bellefoshsigns.ca

60 Park Lane Ave.
Winnipeg, MB.
R2R 0K2

"Stay With People Who Care"



- High Speed Internet
- Complimentary Breakfast Buffet
- Fitness Centre
- 24 hr Front Desk

Thompson Hotel & Suites

205 Mystery Lake Road
Thompson, MB

204.778.8887

Frontier Builders:

The Hub Model Continues to Grow

By Tyson Mac Gillivray and Grant Kreuger



Students building a ready to move home.



Students at the Northern Technical Centre.

Frontier Collegiate Institute and the Northern Technical Centre (NTC) have seen significant program expansion and capacity over the past five years.

The Frontier School Division has worked hard to raise the profile of technical vocational education in its five regional areas and we feel that we have made progress and will continue to gain momentum in the coming years.

We have seen a significant increase in vocational credits due to the programming offered on the campus of Frontier Collegiate, specifically in the NTC. The NTC, and the programs offered there, are highly profiled within the division and with our partners in the north. These partnerships have facilitated further programming development, which have been evolving on a regular basis.

With the shortage of skilled trades, our focus has become increasingly acute in each Frontier community. We must not allow genuine, sustainable and well-paying career opportunities to elude our students. All students deserve the best education opportunities we can provide

so that they are trained for the best career opportunities possible.

Our Hub delivery continues to mature as we engage parents, students and communities. This model is based on the common principles of authentic involvement: respect, mutual reciprocity, leadership development and the inclusion of all stakeholders. Although this article focuses on our building construction program, we are partnering with University College of the North in many other subject areas. This collaboration will ensure that our programs will not be compromised as they develop.

In partnership with the Province of Manitoba, Frontier School Division has transformed a once derelict aircraft hangar into a training center, which includes four classrooms, a carpentry workshop and a cosmetology lab. Here we are offering an accredited building construction program where we are building two 1,176 square feet ready to move homes (RTMs). The NTC also houses an adult learning centre.

The redesign of the NTC was a labour of love for our students, who acted as the general contractor for the project. Our former graduates are very

proud of their hard work as they have left a legacy for many students to experience in the future.

The construction of the NTC took four years, beginning in 2008 and opening in September 2012. It has been expanding ever since. This facility is buzzing with excitement 10 months of the year—a highlight being the construction of two RTMs that will be purchased by Manitoba Housing and Community Development.

This partnership has provided authentic learning for our building construction students and valuable lessons in how an active construction site operates. This partnership has grown from building two RTMs to the procurement of a four year contract, which includes building additional RTMs, and renovation and building of additions in our local communities.

This project enables instructors to teach students all aspects of a construction project from the ground up, including the construction of two insulated concrete form basements for the RTMs. Not only do students receive a genuine learning experience, they also grow as individuals in ways that a classroom

education alone would not promote. Students are proud of their work, evidenced by their enthusiasm and confidence when visitors show up. They are out on the floor sharing their experiences and explaining the building process as if they were the instructors.

In addition to the NTC, Frontier School Division has recently opened a power mechanics shop that will be home to our expanding power mechanics program and future heavy duty and welding programs that are being developed.

The NTC has been the center of many divisional vocational initiatives. These initiatives promote vocational programs that provide students from across the division an opportunity to engage in and experience vocational opportunities.

Approximately 70 students annually participate in CareerX, a week long program for Grade 8 students to Xplore, Xpand and Xperience various technical vocational opportunities, including the trades.

Approximately 65 students in Grades 9 and 10 participate annually in the Expanded Options Program (EOP), which is a two week program, one week in the fall and one in the spring. Students choose from an offering of approximately 25 courses for their two-week focus. Choices range from building construction to cosmetology to web design to robotics.

Approximately 50 students annually participate in Four plus One (4 + 1). This alternative programming is offered in January and June to students from seven schools within Frontier School Division. Introduction to northern trades, building construction, introduction to health careers (health care aid and early childhood education) and power mechanics have been offered. This program changed the landscape of traditional high school delivery in the division and has been successful to date.

Alternating groups of about 22 males and 22 females come in for seven to 12 day sessions during a semester for the Engaged Learners Program (ELP). This program was designed to engage learners who have dropped out of the education system. We use a wilderness camp which provides accommodation, meals, classrooms and work spaces.

This intensive program has a variety of activities introducing students to trades and other potential school and employment pathways.

All of these programs have helped expand our flagship accredited building construction program into a unique model that serves our communities in more functional ways. Students who participate in Career X, EOP, 4 + 1 and ELP begin working in the carpentry trade in a way that allows a dedicated student to continue working and learning in their home community.

These programs lay a foundation that can bring students into community projects or allow them to work with the Frontier School Division maintenance crew, where skills they have learned can be exercised. The lessons learned with vocational programs typically exceed the theory of a text or a lecture. They are lessons in relevance and accountability based on successful skill development.

As we have moved forward, we recognized and identified needs in virtually every community we worked in. By finding innovative ways to include our graduates, and with our newly deployed Frontier Builders mobile program support, we can better meet our maintenance needs both in the community and the school division. We can help ourselves while we help our students succeed.

Frontier School Division has created partnerships which will allow accrued apprenticeship hours to be tracked in a far more effective manner than we in past years. The goal is to have more students find true success as multi-level apprentices, while gaining work experience in the safest environment.

The opportunities for relevant, advanced course work are improving daily in all of our schools. This is being achieved by braiding a homegrown industrial arts model with a mobile expanded options delivery model that caters to each community's needs. We then maximize the preparedness of students coming to us, regardless of age or gender.

Each and every community in Manitoba has a shortage of skilled labour. By working to address this with school division maintenance staff and the partnering communities, the opportunities and the payback are multiplied. Tangible engagement of students beyond the classroom at the district level is sure to add true wealth to our communities for the coming generations. These innovations and creative programs piloted at the NTC and on the campus of Frontier Collegiate have evolved from our divisional and community needs.

Frontier School Division has partnered with the University College of the North in the most sincere way possible; we are discovering the genuine impact such a rich technical vocational program

studio 26
HOT YOGA

**ADULT, TEEN AND
CHILDREN CLASSES**


SCHOOL GROUPS WELCOME

Unit 1 - 1763 Pembina Hwy.
(Across from Canad Inns)
Call: 204-275-1185


Like us on Facebook:
facebook.com/Studio26HotYoga

studio26hotyoga.com

**What are you doing
this summer?**



**Short Term Mission Trips
for all ages**




www.TeenMissions.ca
www.TeenMissions.org

can have on the lives of young students. The proof is evident in the confident stride of our students as they attend class; young women and men who are taking an active role in our most aggressive project to date.

Opportunities present themselves each and every day for the Frontier Builders to build people and build communities through invitations to partner and shared projects. By blending our high school delivery with adult education and the new engaged learners program, nurturing the connection with post-secondary curriculum and exploring flexible timetable options, we provide maximum benefit to students while increasing the efficiency of our divisional facilities and staff. The NTC is the foundation to provide both students and communities the opportunity to access and embrace tangible career options. ■

Tyson Mac Gillivray is the Assistant Superintendent at Frontier School Division. Grant Kreuger is the Technical Vocational Coordinator at Frontier School Division.




SERVING THE MANITOBA EDUCATION SECTOR

Building — Building Sciences — Structural
Mechanical — Electrical — Environmental
Geotechnical — Civil — Planning

www.wspgroup.com/canada

204-477-6650
1600 Buffalo Place
Winnipeg, MB R3T 6B8
bruce.emberley@wspgroup.com




Pembina Inn and Suites
1714 Pembina Hwy
Winnipeg, MB
204-269-8888
204-262-1503
www.bwpembina.com

GENERAL SIGNS
507 Henry St., Saskatoon, SK S7N 0S6 Tel: 785-2066

Customer: ☐ Approved ☐ Revisions Required
☐ Approved as per noted changes ☐ Approved by e-mail
Authorized Signatures: _____

All artwork copyright of General Signs. All reproduction without written consent. Actual production colors may vary due to translucency and pigments of substrates, films and prints.



Shawn Atamanchuk
169 McIntosh Rd.
Headingly, Manitoba
R4H 1G1
Ph. (204)831-6601
Fax. (204)831-6528
Cell. (204)771-8821
Email. shawn.bigsky@shawbiz.ca

 National Wood Flooring Association



Catherine A. Kelly
Barrister & Solicitor
www.separatingmindfully.com

535 - 70 Arthur Street
Winnipeg, MB R3B 1G7
204-229-5126 (cell); 204-284-4713 (office)
kellylaw@mymts.net



CENTAUR
CENTAUR PRODUCTS INC.

Canada's Proud Supplier of:

**Sports Flooring • Daktronics Scoreboards •
Spectator Seating • Basketball Backstops**

Toll Free: 1-888-430-3300 Email: tammyc@centaurproducts.com

WWW.CENTAURPRODUCTS.COM
204-832-6288
Tammy Chura

Learning . . . Outside the Box!

By Kirk Baldwin and Adair Warren

As educators we take seriously our responsibility to engage our young people in learning that is both foundational and relevant.

The challenge is to extend that learning beyond the walls (and timetables) of high school. In Seven Oaks School Division, we have implemented several programs that expand the experiential learning opportunities for our students. Three of those are featured in this article: Beyond Grade 12 NOW!, Cooperative Vocational Education and the Seven Oaks Met School.

Get the credit you deserve, twice!

Beyond Grade 12 NOW! is an exciting dual credit program that brings Red River College (RRC) and the University of Winnipeg (U of W) into the high school classroom. Students will be able to take first year college or university courses concurrently with their Grade 12 credits.

Students can choose first year anatomy and physiology, accounting, CAD/mechanical design, or TV and radio broadcasting from RRC. From the U of W they can take English, psychology, sociology, calculus or law. All these courses run within the regular school day and in the student's home school. Classes are co-taught so there is a high school teacher and a post-secondary instructor present to double the perspective and support.

Students will receive a Grade 12 credit and a post-secondary credit that will count toward their first year; all at no cost. Students get registered with U of W or RRC and receive a regular post-secondary transcript upon completion. The professional dialogue that co-teaching requires

will widen and refresh the perspectives of the instructors and the teachers; they will be learning from one another.

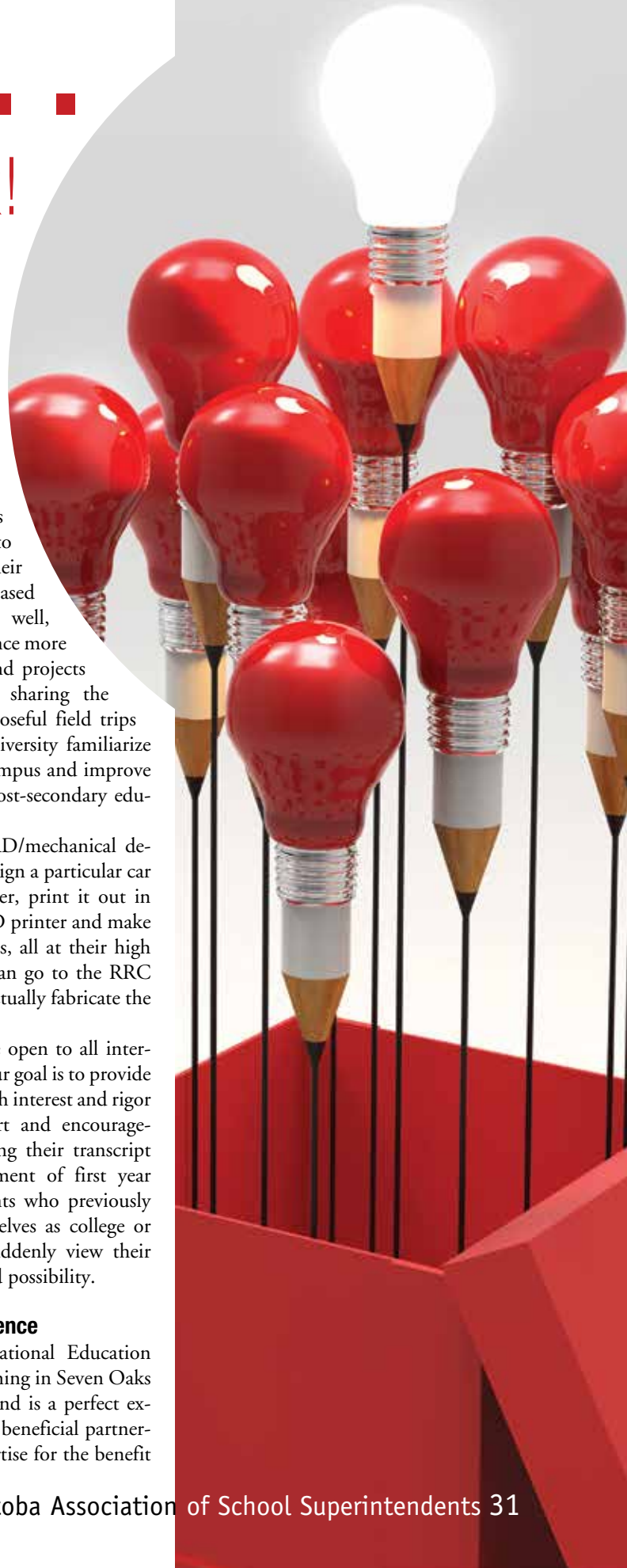
Having two teachers in the class allows students to dig deeply into their learning with increased teacher support. As well, students can experience more writing, lab work and projects with both teachers sharing the load. Frequent purposeful field trips to the college or university familiarize students with the campus and improve their transition to post-secondary education.

For example, CAD/mechanical design students can design a particular car part on the computer, print it out in plastic using their 3D printer and make needed modifications, all at their high school. Then they can go to the RRC machine shop and actually fabricate the part out of metal.

These courses are open to all interested students and our goal is to provide a combination of high interest and rigor with teacher support and encouragement. Upon receiving their transcript showing the attainment of first year credits, some students who previously had not seen themselves as college or university bound suddenly view their future with hope and possibility.

Yes, I have experience

Cooperative Vocational Education (CVE) has been running in Seven Oaks for about 20 years and is a perfect example of a mutually beneficial partnership that pools expertise for the benefit



of eager vocational students and future employers. The program is one year and begins with two months of classroom-based learning in the fundamentals and safety required for their trade.

Then, the real learning begins as students spend four days per week in a work placement and one day back in class. Over the year students will have applied what they are learning for well over 500 hours on a real job site. Where applicable, those hours count toward their level one apprenticeship requirements.

Students gain experience directly from the journeyman trainers and industry partners as well as their CVE teacher who regularly visits them on their job placement. Industry partners appreciate the close relationship they have with the student's teacher. Having the teacher visiting the student onsite allows for side-by-side teaching, morale boosting, supported problem-solving and frequent communication between the employer, the student and the teacher.

This support is what is missing with the High School Apprenticeship Program and has proven to be the major contributor to the success of the CVE program. Student retention and credit attainment are both very high, and over 80 per cent of our students have good industry job offers upon graduation that either have them working toward their next apprenticeship level or gaining paid experience in their field.

Offering vocational programming using the CVE model is extremely cost-effective. Since the students spend most of their time on jobsites learning on their equipment, there is no need for expensive shop facilities, so a basic classroom will do. As the province looks for ways to increase the number of students in vocational programs and divisions strive to provide vocational programming in more of their schools, CVE offers a perfect way to meet the demand for skilled trades.

As the skilled trades worker-shortage statistics pile up, partnerships like this offer a real solution. With experienced journeymen willing to share their knowledge, industry partners willing to have young apprentices gain practical

experience on their jobsites, a solid curriculum and school-based training, we are launching careers and providing industries with skilled workers.

At the end of this one year program, when asked by a potential employer if they have experience, CVE students can answer with a resounding "YES!"

Seven Oaks Met School: The best of both worlds

High school curriculum is rich in opportunities that enable students to explore wide ranging subjects and develop important skills. More than ever, high schools offer engaging academic and extra-curricular programs to foster student engagement and success. A student's high school experience can have lasting impact and can chart the course for years to come.

Among the choices and challenges students face, it can be especially hard to hear the inevitable question, "What are you going to do after high school?" The reality is that informed decisions about post-secondary and career choices are a complex process of developing academic skills, personal qualities and experiences of professions and occupations. In Met School, internships are the link between high school academics, and post-secondary and career opportunities.

The driving forces behind Met School philosophy are "Relationships, Relevance and Rigor." It begins with the premise that students learn best when they are doing something that they are passionate about, in the real world, and when they actively participate in their own education.

Met School provides an engaging academic program that is grounded in curriculum and embraces student interests. It facilitates authentic experiences with internships across every imaginable profession and across Winnipeg.

Students in Met School explore their interests, examine career connections and conduct research on our city. They develop resumes, work on their interview skills and arrange to interview people who work in their field of interest. With the assistance of their teachers and the support of parents, our students find internship placements in the community.

Met School is timetabled in a unique way; Mondays, Wednesdays and Fridays are academic days and Tuesdays and Thursdays are internship days. On academic days students take part in Met School classes, curriculum workshops, independent study, research projects, field trips and assignments to develop skill and competence in the curricular areas.

On internship days, our students are at their internship sites working alongside their mentor, an adult working at the site who guides the young student in the skills and qualities needed for the job. Internships last for at least three months and students have multiple internships throughout high school.

Students have vital experiences that not only bring awareness of the professional realities of the job, but also hone their ability to work with others and represent themselves in a professional manner. It does not take long for them to make the connection between education and careers; what they learn in high school matters, and what they do in high school matters even more.

Our students have had internships in the fields of veterinary medicine, graphic design, pharmaceutical manufacturing, aviation, automotive, writing and publishing, taxidermy, technology repair, robotics, music and recording, construction, television and film, animation and teaching. The possibilities are endless.

Students often enter high school with some idea of what they are interested in. And while some students explore a particular interest early on and continue with that path through to graduation and beyond, the more typical path has a few twists and turns along the way. Not surprisingly, student perceptions of a job do not always match the reality of that job. And that is okay. That is why we are here.

There is nothing like trying a job, on-site, hands-on, day-to-day, to get the real feel for what it is like to be a lawyer, veterinarian, teacher, computer programmer or artist. Students come into high school with ideas and perceptions, and leave with

experience and ambition. They are passionate about their field. They know what it takes to be successful. They have learned from mentors who have shared their expertise and they have a powerful network of professionals to lean on as they graduate and take their next steps.

Met School is the best of both worlds. Academics and curriculum matter a lot, but you do not get a driver's licence without on the road training and you would not buy a car based on the owner's manual. Some things require hands-on experience.

Met School students expect and deserve no less. They embrace new ways to think about their learning, academic success, careers and their community. They appreciate the connection with the rhythm and rigours of high school and the opportunity to get out in the world for a one-of-a kind internship experience. The one enriches the other and our students, who are passionate, inquisitive and confident young people, are better for it. ■

Kirk Baldwin is the Principal of École Seven Oaks Middle School in Seven Oaks School Division. Adair Warren is the Principal of the Met School in the Seven Oaks School Division.



Western Canadian Aviation Museum

The best way to learn about flight...hands on.

Contact:
programs@wcam.mb.ca
 204-786-0730



MAKE IT HAPPEN BY SHERI
 Sherilyn Arndt

www.fareconnect.com/sheri
www.beautipage.ca/sarndt

SHERI@FARECONNECT.COM
 Travel agent
 Teacher

Beauticonsultant
 (204)791-9205

Authorized & Accredited Affiliate of Fareconnect.com



Valleywest
 LANDSCAPING INC.

From design to complete construction, our company can provide you with a play area to fit your needs!

Contact Earl Fast or Shaun McMahon
 for a free consultation!
204-981-0467
www.valleywest.ca




Bringing the classroom to the living room

The new Campus Manitoba is here!

- Hundreds of courses
- Seven partners
- One website

Visit us at eCampusManitoba.com

Campus MANITOBA



The Cisco Networking Academy

By Phil Klassen

Red River College (RRC) has built on a very successful model through the Cisco Networking Academy (CNA) over the last 15 years. When RRC first got involved in the CNA, some of the high schools in Winnipeg had already been members for a number of years. The academies were structured in three tiers:

1. **Cisco Academy Training Centers (CATC)** were designed to offer subject matter expertise. The instructors were also the developers of the curriculum.
2. **Regional academies** provided a support function for the local academies that they helped develop in high schools. The intention was that a few instructors or teachers at these regional academies would go for training at the CATC and then return to train other instructors or teachers to deliver the networking content in local academies.
3. **Local academies** were where the student classes were created and where instructors or teachers delivered content to students. These local academies were located in high schools and colleges, and delivered the exact same courses.

In 2000, RRC sent three instructors to the CATC in Toronto to be trained for the first two of four courses that are needed for the entry level certification. On their return, they immediately started to offer courses in continuing education. The response was overwhelming. Later that year, they returned for the other two courses and at that point RRC could teach all four of the courses of the Cisco Certified Networking Associate certificate exam. A year later these courses were offered in our day networking programs.

During the same time, RRC was instrumental in starting four new Cisco Networking Academies (CNA) in Manitoba high schools. All of the teachers were trained by RRC instructors. This worked well in that many of the training courses were run at the beginning of July when teachers did not have students. With time, due to changes to the Cisco curriculum, all the teachers in Manitoba needed to be retrained and RRC was the only regional Cisco Academy in Manitoba able to deliver this training. It is fair to say that essentially every CNA instructor in Manitoba has been trained at RRC at one time or another.

Due to this relationship, RRC has always had a lot confidence in the teachers in other academies and readily gives credit to students who have finished their courses in other Manitoba academies. Part of the strength of the CNA is that every Cisco Academy uses the same learning management system (LMS) that Cisco has developed. The courses in the high school and RRC are identical, with any differences coming from the supplementary material instructors and teachers supply.

Over the years, RRC has planned regional conferences for the teachers involved in CNA. Cisco has brought in many expert speakers to complement the activities at the conferences.

Other courses in the Cisco LMS were PC hardware fundamentals and Linux. Many of the high school teachers have also been trained in PC hardware fundamentals at RRC, using the same model for the networking courses.

Several years ago, Cisco changed the hierarchy of the CNA by creating academy support centers (ASC) and Instructor Training Centers (ITC). With this model, local academies now get to choose with which ASC they

will be associated and from which ITC they will be getting their training. At present, the ASCs in Winnipeg are the Manitoba Institute of Trade and Technology, and Red River College. The role of ASCs is to support the local academies with expertise in content and curriculum delivery.

The other aspect of the CNA is the natural articulation that exists between high school and Red River College. We have accepted numerous students into our networking programs at RRC and granted them credit for courses they have finished in the CNA program at their high school.

At present, we have a formal articulation agreement between Sisler High School and both the electrical engineering technology department and the business information technology department. This gives their students, who have completed their networking courses in the CNA advanced credit for those courses in RRC's networking programs.

Going forward, RRC is anticipating changes to the Manitoba high school curriculum with regards to networking and cyber security. The college will continue to work with the individuals on this project as well as looking at ways to integrate this high school training so students can be given advanced placement in RRC networking programs.

Also going forward, we envision that in our role as an ASC we will continue to support the high school CNAs and all the wonderful teachers who have decided to pursue the teaching of networking and cyber security. ■

Phil Klassen is the Academic Coordinator for the Electrical Engineering Technology program at Red River College. He is also an instructor for the Cisco Networking Academy.

Preparing Students for Cyber Security Employment

By Charles Bazilewich, Nick Dixon and Sandeep Sheera

Technology used in today's business environments is rapidly evolving. This has transformed the working environment into a place of participation and collaboration that reaches beyond conventional barriers.

In order to maintain this evolution and to ensure that personal and business information are safe, network and cyber security education programs are being developed. Sisler High School's program delivers relevant skills to students seeking employment or post-secondary programs in these fields.

Students graduating from high school and applying for jobs often hear the dreaded, "I'm sorry, we are looking for someone with more experience." This is sadly the case for young people graduating with a computer science or computer engineering degree, or from a professional IT program. When it comes to information security (Info Sec), many businesses are reluctant to trust network security to prospects with minimal hands-on experience.

So, how does one gain this experience? Starting in September 2015, high schools delivering the eight-course cluster for network and cyber security vocational cluster will expose students to inclusive project-based learning, such as the Canadian Cyber Defence Challenge (CDC) and CyberPatriot. These learning opportunities offer a great chance to practice cyber security and system administration in a safe, hands-on environment under the direct supervision of education and industry professionals.

The network and cyber security program (NCSP) was established in 2011 to deliver quality vocational technology

education to expose students to quality education and prepare them for industry certifications. The program promotes the integration of vocational technology education with academics and will provide students with the skills required to seek employment in the field. It will also prepare them to compete for job opportunities in Manitoba, capitalizing on the growing opportunities in the workforce today and for the projected growth in the next 10 years. It prepares students for the following industry certifications:

- CompTia A+;
- CompTia Security +;
- Cisco CCNA;
- Cisco CCNA Security;
- MTA-98-349 Windows Operating System Fundamentals; and
- MTA-98-365 Windows Server Administration Fundamentals.

Over the past three years, NCSP students have dominated local and international technology competitions, such as Skills Manitoba, Skills Canada, CyberPatriot and CDC. These competitions allow students to gain practical, real world experience related to the field and enable transfer of learning. Sisler students competed at the 2012 CyberPatriot national high school Cyber Defense Competition in Washington, D.C. and qualified second in the world for the CyberPatriot International exhibition.

The CyberPatriot competition started with over 1,500 teams from all over the globe. Sisler qualified in the top two per cent. They also took first place at CDC in 2012 and 2013. In the last three years, Sisler students received gold medals in IT-network and system administration at Skills Manitoba as well as gold, silver and bronze at Skills Canada.



The Sisler girls team hard at work preparing for competitions.



The Sisler teams have won many awards.

Annually over 85 students are actively involved in preparing for cyber security competitions during lunch hours, after school and on weekends. These learning opportunities are essential in the process and assist students in developing technology, leadership and project management skills on a global level.

In Canada, the CDC has been held at Red River College (RRC) and is the first program that brings high school students and security professionals together to raise cyber security awareness among youth.

The CDC is a non-profit organization governed by an independent board of industry professionals, executives and education representatives. Their goal is to educate and empower the

local community to use the Internet safely and securely at home, work and school, protecting the individual, the networks they connect to and Canada's shared digital assets.

CyberPatriot is a unique educational competition that challenges students to resolve real-life cyber security situations faced by industry professionals. Created in 2009 by the Air Force Association, CyberPatriot provides students with hands-on learning about securing computer networks while motivating them to consider careers in science, technology, engineering and mathematics.

The Sisler High School team, led by Charles Bazilewich, Robert Esposito and Nick Dixon was one of 12 finalists that qualified for the CyberPatriot VI National Finals Competition in Washington, D.C. As part of the competition, students collaborated to defend virtual networks and mobile devices from a professional aggressor team. The finals also included a digital cyber crime scene challenge, Cisco networking challenge and a digital forensics challenge. These extra challenges broaden the cyber security experience for students and expose teams to new elements of the many career opportunities available to them.

The networking and cyber security program at Sisler High School is one of the notable innovative technology programs in Manitoba. The success of the program is due to skilled and dedicated teachers, mentoring by the program's graduates, and support from school and divisional administration.

Delivering relevant curriculum using sound instructional methods makes the network and cyber security program a model for 21st century classrooms, using the inverted classroom model and industry standard web-based curriculum that students can access anywhere. The model exposes students to event-anchored learning strategies revealing real world technology challengers. As a result, students build confidence, leadership project management experience and superior work ethic.

Nick Dixon: A student success story

I am Nick Dixon and the opportunities I have had through the network and cyber security program at Sisler have benefitted my education and career path. In Grade 11 I had no clue where my life was headed. Fortunately, I had an interest in technology and was approached by the NCSP teacher. I decided to sign up for the free courses, knowing that they would be costly at post-secondary institutions.

I took Cisco discovery one to four classes and IT essentials. Through these courses I got my industry certification CompTIA A+ and prepared for other certifications, such as the Cisco CCNA. At the same time, I was exposed to extracurricular activities. The most beneficial was the cyber defence program. In my spare time I learned about the wonders of IT security and finally found something I was passionate about and wanted a career in. I learned about computers and networks, their flaws and how to prevent malicious attacks.

The prize for giving up so much of my time was a trip to Washington, D.C. to compete in the CyberPatriot national finals. The competition opened my eyes to the opportunities in this field. I met many professionals from across the United States and had a chance to see some of the facilities dedicated to ensuring safety for online users.

After Washington, I came back up to Canada and was given more opportunities. I was able to compete in the CDC competition, which brought the aspect of business into IT security. I also had a chance to share my knowledge by doing presentations about my experiences with the NCSP, online safety and careers in cyber security.

When my time as a student at Sisler was over, I decided that I wanted to give something back. As a graduate, I came back the next year to mentor students in cyber defence. The team I coached was the first Canadian team to qualify for the finals. We had another successful year in Washington where the students were able to learn a lot.

Just before taking this trip, I began working in the industry at Octopi Managed Services. That opened the door to another full time position at Securris as an information security analyst. In the 16 months I have been in the industry I have learned a lot and have been able to apply many of the skills I learned at Sisler.

I am continually working on furthering myself in the industry by learning new skills and challenging myself. I also continue to mentor teams at Sisler and aspire to find young, motivated people to give the same opportunities that I got.

Sandeep Seehra: A student success story

My name is Sandeep Seehra. I am 18 years old and currently working at EPIC Information Solutions. This is a direct result of the technology program at Sisler High School. I would not have had these opportunities if it was not for NCSP. I am a former student of RRC where I received advanced placement in the Cisco Certified Network Professional (CCNP) certificate program.

When I entered Grade 10, I decided to take my first technology courses. Those courses included operating systems and exploring industry hardware. My teacher for exploring industry hardware was Mr. Bazilewich and it was his first year teaching. He started by teaching us about industry certifications.

He soon realized that some of us were more intent on learning about computers and had a better grasp on them. He approached a group of us and asked if we wanted to focus more on getting our CompTIA A+ certification. We were all ecstatic and thought it was an amazing way to start our careers in IT. By Grade 11 I had obtained my A+ certification!

My Grade 11 year was an exciting time for the IT/networking program. We had started the Cisco curriculum at Sisler with the CCNA discovery levels one to four. These courses were very special as they were not normally taken in high school, rather at the post-secondary level. We took these courses in a new classroom with new routers and switches so we could apply our learning of networking to tangible hardware.

We also started using Cisco Packet Tracer, a network simulation software, to gain a more in-depth understanding of networking. At the time, Mr. Bazilewich was the only one trained to teach the Cisco teachers and he did an excellent job of it. He has been one of the most enjoyable teachers I have had to date.

In Grade 11 we were introduced to competitions, including the U.S. Air Force Association's Cyber Defense Challenge, CDC, Skills Manitoba, Skills Canada and NetRiders. Each tested our different skill sets and our ability to apply them in practical situations. These competitions not only taught us how to work in a high pressure environment, but the added level of competition made it all fun and exciting. I continue to compete at the college level.

By my final year at Sisler we had new teachers, equipment and peers. We established a culture of success that required dedication, commitment and teamwork to do well in the IT/networking program and in the competitions. And we did. I placed second in the NetRiders and the Skills Canada competitions, and first in Skills Manitoba. None of this would have been possible without the help I got during class and after school hours.

By the end of high school I had done more than I had set out to accomplish; not only at the secondary level, but also the post-secondary level. I had a social and professional network from meeting people in the IT, networking and network security field. This provided a great experience and insight into the practical IT field, but also helped my peers and I get other great opportunities, such as internships.

Since my graduation in June 2013, I have obtained my CCNA industry certification. I have also been advancing in the field of networking by taking courses at RRC. Through the U.S. Air Force Association's Cyber Patriot, the CDC and Skills Canada, I discovered my goal was to advance in the network security field.


At the post-secondary level, I am taking the CCNP program at RRC,

but am also enrolled in the CCNA security course at Sisler. Mr. Bazilewich had also taken a big interest in network security and took instructor training for the CCNA security course in order to be certified to teach this course to enthusiastic high school students.

Since 2012, NCSP has delivered vocational education that promotes student employment. In the last three years, at least 14 Sisler students have successfully gained employment

related to information technology and cyber security with Manitoba companies. They work as information security analysts, help desk analysts, system administrators and computer technicians. ■

Charles Bazilewich is a teacher at Sisler High School and developer of the Network and Cyber Security Program. Nick Dixon and Sandeep Sheera are graduates of the NCSP at Sisler High School.



Fundraising Opportunities

Call Carol to discuss your options
204.785.8374



Muscle Mist:
A spray for pain
--a great fundraiser
for sports teams



Fruit & Nut Trays:
Several varieties to choose from
-- a healthy alternative
(allergy options available)



LindenRidge ORTHODONTICS

DR. RANA SHENKAROW BSc, DMD, MSc (Ortho), FRCDC

- ▶ Certified Specialist in Orthodontics
- ▶ Braces & **invisalign™** for children and adults
- ▶ **REFERRALS NOT NECESSARY**


1719 Kenaston Blvd | 940-STR8 (7878) | www.str8.ca












| | |
|--|----|
| ANTI-BULLYING | |
| Canadian Safe Schools..... | 26 |
| ARCHITECTURE AND ENGINEERING | |
| Stantec | 18 |
| AUDIO, LIGHTING AND STAGING | |
| Stage Lite Manitoba Ltd. | 4 |
| BAND OPERATED ELEMENTARY AND HIGH SCHOOLS | |
| Cross Lake Education Authority | 27 |
| BARRISTER AND SOLICITOR | |
| Catherine A. Kelly | 30 |
| BARRISTERS, SOLICITORS AND TRADE MARK AGENTS | |
| Fillmore Riley LLP | 10 |
| BEST WESTERN PLUS PEMBINA INN AND SUITES | |
| Best Western Plus Pembina Inn & Suites | 30 |
| BIKE EQUIPMENT, CROSS COUNTRY SKI AND SNOWSHOE SUPPLY | |
| Olympia Ski & Cycle..... | 27 |
| BUS CHARTER AND RENTAL | |
| Vital Transit | 27 |
| CAREER AWARENESS | |
| Skills Canada Manitoba..... | 38 |
| CHARTERED ACCOUNTANTS | |
| Craig & Ross Chartered Accountants | 27 |
| CLASSROOM AND EVENT SUPPLIES | |
| Gale's Wholesale Ltd. | 12 |
| CLASSROOM AND LIBRARY FURNITURE | |
| B.F. Workplace..... | 10 |
| COLLEGE AND UNIVERSITY PROGRAMS | |
| Campus Manitoba..... | 33 |
| CONCRETE SLAB LIFTING | |
| Poly-Mor Canada..... | 18 |
| CONSULTING ENGINEERS | |
| WSP Canada | 30 |
| EDUCATION | |
| ASCD Manitoba | 23 |

| | |
|--|-----|
| EDUCATION (CONTINUED) | |
| Teen Missions | 29 |
| University College of the North..... | OBC |
| EDUCATIONAL CONSULTANTS | |
| Pyramid Educational Consultants Canada Inc. | 22 |
| EDUCATIONAL TOURS | |
| Fehr-Way Tours..... | 18 |
| Quarry Park Heritage Arts Centre..... | 12 |
| ELECTRICAL SUPPLIES | |
| Westburne Electrical Supply | 23 |
| ENVIRONMENTAL AND HEALTH | |
| Pinchin Environmental Ltd. | 22 |
| FAMILY LAWYER | |
| Leandre G. Buisse, Family Lawyer, Robertson Shypit Soble Wood | 27 |
| FENCING SYSTEMS, GATE AND ENCLOSURE SYSTEMS | |
| Innova Fences | 10 |
| FIRST NATIONS EDUCATION | |
| Keewatin Tribal Council..... | 10 |
| FLOOR CLEANING | |
| PFP Sales & Services Inc..... | 11 |
| FLOOR COVERING FOR SCHOOLS AND SPORTS | |
| Big Sky Enterprises & Services Inc..... | 30 |
| FREE BEVERAGE RECYCLING | |
| Canadian Beverage Can Recycling Association | 6 |
| FUNDRAISING | |
| Gamma Carol's Gourmet Bulk & Health..... | 37 |
| GREEN PRODUCTS | |
| Green Manitoba..... | IFC |
| GROUP BENEFIT SERVICES | |
| Johnson Inc..... | 8 |
| HANDS-ON, LEARN ABOUT FLIGHT | |
| Western Canadian Aviation Museum..... | 33 |
| HOTEL ACCOMMODATIONS | |
| Best Western Hotel and Suites..... | 27 |
| Holiday Inn Winnipeg Airport West..... | 18 |
| Place Louis Riel Suite Hotel | IBC |


| | |
|---|----|
| LEARNING CENTRE | |
| KC Dyslexic Learning Centre..... | 27 |
| MAKE YOUR DREAMS COME TRUE | |
| Fare Connect..... | 33 |
| MANITOBA ELECTRICAL MUSEUM | |
| Manitoba Hydro | 26 |
| MEDICAL SUPPLIES | |
| IMS Innovative Medical Supplies / Innovative Therapy Solutions | 16 |
| MUSEUMS AND THEATERS | |
| Le Musée de Saint-Boniface Museum..... | 17 |
| NATURAL PLAYGROUNDS | |
| Valley West Landscaping..... | 33 |
| ORTHODONTICS | |
| Dr. Rana Shenkarow, Linden Ridge Orthodontics..... | 37 |
| PROJECTORS AND DOCUMENT CAMERAS | |
| EPSON Canada Ltd. | 3 |
| ROOF SERVICE AND MAINTENANCE | |
| MJ Roofing..... | 38 |
| SCHOOL AND OFFICE SUPPLIES | |
| Christie's Office Products | 12 |
| SIGNAGE | |
| Bellefosh Signs..... | 27 |
| SPECIALTY DESIGN PE CONSULTING | |
| Adaptive Engineering | 9 |
| SPORTS FLOORING, SCOREBOARDS | |
| Centaur Products..... | 30 |
| STUDENT TRANSPORTATION ROUTING SOFTWARE | |
| Transfinder Corporation..... | 17 |
| TRADES AND TECHNOLOGY INSTITUTE | |
| Manitoba Institute of Trades & Technology | 7 |
| WATER COOLERS | |
| Novanni Stainless Inc. | 10 |
| YOGA STUDIO | |
| Studio 26 Hot Yoga..... | 29 |



Mission
To attract young Manitobans to careers
in skilled trades and technology

Maria Pacella, Executive Director
Phone: 204-927-0250
www.skillsmanitoba.ca





Technology



Transportation




Industrial



Construction



Service



EST. 1959
AFTER MORE THAN
55 YEARS
THIS MANITOBA
ROOFING COMPANY
KEEPS GROWING

Commercial & Residential
Flat & Shingled Roof Systems
Metal Siding & Flashing

204.586.8411

www.mjroofing.net



*For power meetings or weekend retreating—
we're still your destination.*

Place Louis Riel is still your business or holiday haven. Situated in the heart of Winnipeg's bustling downtown, our guests have easy access to business and government districts, the Winnipeg Convention Centre and the MTS Centre, in addition to exciting dining, entertainment and shopping destinations. Spacious rooms and in-suite kitchens make you feel right at home, while luxurious décor, complimentary WiFi and 24-hour business and fitness centres bring any trip from blasé to breathtaking.

190 Smith Street | placelouisriel.com
Call 800 665 0569 for reservations.



PLACE LOUIS RIEL
SUITE HOTEL





KNOWLEDGE

IS WITHIN REACH. MAKE IT YOURS.

MY KNOWLEDGE *will help me educate others.*
IT MIGHT *teach me too.*

UCN's **Kenanow Faculty of Education** is one of a kind. This faculty provides future educators with a solid foundation for teaching in the North, and fully prepares teachers for full certification with the province. The Kenanow Learning Model bridges the links between western education perspectives and the Aboriginal perspectives in the transmission of knowledge. It is this connection that prepares our graduates to work anywhere in the province.

Skilled educators are in high-demand in Manitoba. As need continues to increase, so do your prospects for a rewarding career.

For more information about the Faculty of Education, please contact:

Marlene Gareau, Administrative Assistant

P: 204-627-8546

E: mgareau@ucn.ca

OWN YOUR FUTURE
UNIVERSITY COLLEGE OF THE NORTH



What can your knowledge do?

For more information, or to register, visit www.ucn.ca

