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Prime Minister's Awards for Teaching Excellence

Exemplary Practices 2012

Canada

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Welcome

You name it, they can do it. Performing for the Lieutenant Governor, launching and chasing after high altitude balloons, snowshoeing up mountains and learning about GPS, or making a deposition to Toronto City Council … Canada's students are doing great things and it's thanks in large part to a phenomenal and inspiring group of teachers.

The Prime Minister's Awards for Teaching Excellence honour outstanding and innovative elementary and secondary school teachers in all disciplines who instill in their students a love of learning, and connect them to their communities and the world through teamwork, research and the innovative use of technology. Teachers may receive one of two awards: the Certificate of Excellence and the Certificate of Achievement. Each recipient's **biography** highlights the inventive activities of some of Canada's most inspirational teachers.

Hailing from all corners of Canada and from all walks of life, 17 Certificate of Excellence recipients traveled to Ottawa in early October 2012 to receive their award from Prime Minister Stephen Harper and take part in an exciting week of activities in honour of World Teachers' Day. It was a whirlwind tour that provided the diverse group with a true Ottawa experience. They visited the Museum of Science and Technology, attended Question Period in the House of Commons and were granted an exclusive tour of the Library of Parliament with the Head Librarian.

At a reception hosted by the Honourable Andrew Scheer, Speaker of the House of Commons, the teachers had the opportunity to meet and chat with Members of Parliament. In addition, Mrs. Laureen Harper graciously hosted a reception for the group at 24 Sussex Drive. The recipients also visited Rideau Hall where they met the Right Honourable David Johnston, Governor General of Canada, and participated in a discussion with this fellow accomplished teacher and lifetime advocate for education.

The week culminated in a "Teacher's Talk" event hosted by Catherine Clark, from CPAC's *Beyond Politics*. Katherine Berg, Special Advisor to the Secretary-General, Canadian Commission for UNESCO gave an address recognizing that nothing can replace a good teacher. With regard to this year's special space educator award, former Canadian Astronaut Dr. Robert Thirsk gave a heartfelt presentation that praised the critical role teachers play in the choices students make and offered insight into the contribution of teachers to his own career.

But it was when the teachers took over the floor, that an overwhelming sense of passion, knowledge and expertise in the room was undeniable. Each recipient presented an overview of their most memorable teaching moments and how they approach their practice. They were grouped into three panels entitled "*Inspiring engagement in students," "Creating roots in education,"* and *"Teaching without borders/Teaching out of this world."* These presentations sparked lively discussions fueled by some of their favourite experiences as teachers.

Whether a techno-geek, a gymnast, a quirky trio, a lawyer, a space hobbyist, a radio producer, or a musician, when these educators got together, they found a lot of common ground. It was widely agreed that the best classrooms extend far beyond the walls of the school and get each and every student excited to learn. These teachers get students discovering space or the great outdoors, engaging in their communities, and finding their passions. All of the panelists agreed that inclusivity is important to maintaining student attention, or sparking a student's interest. They agreed that getting the students involved in a project that brings together all students and all their unique abilities and strengths is what drives a classroom forward and ties one part of the curriculum to another.

Please read about each teacher's best practices and consult the resources they use in their classrooms.

The Prime Minister's Awards for Teaching Excellence were launched in 1993 – for more information about the program as well as partners and past recipients, go to **www.pma.gc.ca**.

About the Recipients

Greig Bell – The power of experiential education

Wood Street Centre, Whitehorse, Yukon

In the Yukon we have long recognized the strong link between our students and their environment, and have sought to integrate formal, classroom, based learning, with outdoor experiences. It is with this in mind that our government created "ACES", the Achievement, Challenge and Environmental Stewardship program. This program is focused on personal growth through personal challenge. Once accepted to the program, students are expected to be actively involved in at least twenty five days of outdoor expedition settings. These trips provide significant opportunity for personal growth and development and for personal connections to geography and history.

As the program instructor, I am the sole teacher for a group of 18 tenth-grade students for an entire semester. I deliver a program that includes science, social studies, outdoor education and physical education.

A typical day might begin with a science lesson on the language of motion, differentiating between distance, a scalar term and displacement, and a vector term. Students review the text books, and I provide a short lecture, with examples. This may seem like a typical classroom, but here ends the classroom portion of the lesson.

After lunch, we grab our GPS devices, our snowshoes and head out. We park at the base of some cliffs, put on our snowshoes, set the location on our GPSs and head out on a two-hour hike through 50 cms of fresh snow. Breaking trail is tough, so we walk in a straight line and students rotate taking turns at the front. It is a steep climb out of the valley, thus we are forced to switchback our way up. We reach the top, take time to catch our breath and review our progress. Our vantage point gives us a clear view of the school bus that marked the start of our hike, as well as a beautiful view of the serpentine path we took to reach the top. This is a great opportunity to reinforce this morning's lesson.

The students take out their GPSs and check the track log; the serpentine path that we followed to get to our vantage point is the distance, which we confirm using the track function on the GPS. The straight-line distance and direction to the starting point is the displacement, which we review using the navigation screen on the unit.

By this time the students have been exposed to the concept five different ways, they have learned to apply a piece of technology as a measuring device and they have physically experienced the difference between the two terms.

Once they have applied a concept, the classroom theory becomes real, and the circle of learning is complete.

And my job for the day is done.

Marie Chomyn – Lifelong, autonomous learners take root in our classrooms

Tecumseh Elementary School, Vancouver, British Columbia

To nurture authentic and autonomous learners, I have found that student engagement is often ignited through an interdisciplinary and project-based learning environment – think history lesson, meets theatre class and culminates in event planning. If educators are to prepare their students for success not only in today's world, but in a world that few of us can yet imagine, we must move beyond just content and take a look at the learning process. I believe that student learning is built around meaningful, purposeful and relevant learning experiences and scenarios that are applicable to real life.

In 1999, I embraced the opportunity to teach a multi-age cluster class for academically gifted learners (grades four through seven). How does one develop a program that honours yet still harnesses, channels and directs their curiosity and passion for knowledge and for learning? And so began a journey that now has me here sharing my story and my philosophy with you.

Learners are instrumental in identifying personal interests, monitoring their individualized learning goals and completing authentic self-assessments that demonstrate their growth over time in a way that is not always quantitative.

One concrete example of this personalized learning environment is our goal setting process. Keeping mind their Individual Education Plan, each student establishes three goals per term: the first embodies an academic focus, a second focuses on their personal well-being and a third demonstrates a genuine expression of social responsibility within their learning community.

Next, students articulate a S.M.A.R.T., (Sustainable, Measurable, Achievable, Realistic, Timely) plan of action that includes the establishment of a support network comprised of family members, peers, and teachers.

Students reflect, in writing, on their learning process on an ongoing basis, their individual progress, and the effectiveness of their support network. This becomes a rich vehicle for students to develop the more meta-cognitive skills of self-awareness and self-monitoring with regard to their own learning styles, skills and abilities.

The goal setting process culminates with a student-managed conference with parents and teachers and includes an evidence-based evaluation, adult guidance, feedback and support.

It has been said that teachers who work with gifted students are often on the cutting edge of education in both their approach to learning, and, in their delivery model. My journey began in the 20th century and it is heart-warming to see that this holistic ongoing learning practice is one of the fundamental components of 21st century learning/education. Imagine the pleasure in helping create a community of learners and friends who remain connected to the program years after their departure!

Jeffrey Cieszecki – Providing enriched programming to cultivate interest in science and technology

Garden City Collegiate, Winnipeg, Manitoba

To make learning real, we must make it fun. When students have the opportunity to apply theoretical concepts to real life experiences, the lesson sticks far beyond the time and space of a classroom.

From grade six students creating a simulated human colony on Mars as part of the Marsville Program, to high school students launching scientific payloads with weather balloons to near space altitudes (33 kilometres) as part of the WinCube Project (WCP), the field of aerospace provides a perfect vehicle to inspire students to explore science, engineering, math and technology at all grade levels.

Science is fun and can be fun for all. After all, a journalist should know something about space to be able to properly report on it. Both the Marsville Program and WCP highlight unique experiences that can raise the profile of aerospace education within our schools and our communities. These initiatives have included cross-curricular linkages, province-wide collaboration, authentic science and innovative research learning opportunities, and the application of high level science, math and technology. The WCP, of which I am a founding member and educational lead, includes these educational goals and those found in STEM (Science, Technology, Engineering, and Math) and STSE (Science, Technology, Society and the Environment) in the delivery of an extracurricular aerospace program.

The high school level WCP has three major components: a space camp, amateur radio, and near space payload missions. Students from across the province are invited to partake in the weeklong space camp that is offered during the summer, introducing student participants to topics like space law, space mission design, robotics, rocketry, and amateur radio operations. Hands-on activities include rocket construction and launching, an amateur radio Fox Hunt that uses triangulation to locate a hidden radio transmitter, and a high altitude balloon mission. During the remainder of the school year students can participate in classes to receive their amateur radio licenses and high altitude (near space) missions.

Community involvement is key to the delivery and success of a program like the WCP. We have been lucky to receive collaboration and support from specialty organizations, postsecondary institutions, industry and government on a local, national and international level.

We hope that programs such as these will go some way to improving participation rates in STEM and STSE postsecondary courses but also prove that science is fun and can be enjoyed by all.

Dave Coad – Adapting curriculum to create inclusion

Timberline Secondary School, Campbell River, British Columbia

Over the years, I've learned a lesson or two from my students, but above all, I've learned that often subject matter takes a second seat to content and delivery. Meeting the needs of students requires an understanding of their needs, motivations, and interests. While the goals and objectives of a specifc subject curriculum may be inflexible, the content and delivery can be adapted to engage and inspire your students. Let me explain.

In 1998, I introduced computer animation into the classroom. It was an exciting new field, and my program grew in popularity. Our only issue? Gender. The computer lab was a testosterone-rich zone. Despite my initial efforts to adapt the content to a wider group, our male/female split stayed close to 80/20. I was frustrated, often wondering, "We're doing really exciting stuff here! Why aren't girls interested?" As a middle aged man, I realized that I needed to determine what would engage the young women in my school? How could I adapt and develop courses to reach my entire audience? How could I widen the perspective of my male students to create a truly inclusive learning environment? I have worked hard to demonstrate that computers are not gender specific.

At the start of this long process, most animations were about explosions: exploding cars, exploding asteroids, exploding anything. In an effort to move beyond the "explosion genre", I created a digital photography course that included lessons about digital make-up and extreme makeovers. The number of female students rose significantly. In 2005, I created a pilot course in digital art, again, building on the interests and capabilities of my students.

As the program gained momentum, I connected with students from our Skills for Life program. Working closely with educational assistants, we found many of these students, especially those with Asperger's Syndrome, really enjoyed classical animation and were excited by their successes in creating short cartoons. I also found that many of the digital art assignments could be customized to a variety of skill levels, thus expanding the number of elective courses available to Skills for Life students.

One of the newest courses, digital scrapbooking, was designed with girls in mind, but has become much more popular with the Skills for Life students. With page layouts designed with them in mind, they can easily create pages that look very similar to those generated by mainstream students.

And that's a key aspect of inclusivity – adapting the content to meet the needs, interests, and capabilities of the students. While the subject matter has stayed the same – digital technology – we have broadened, adapted, and targeted the content for different types of learners, thus leveraging our efforts to a much broader base of users. I am helping my students learn about digital technology, and my students are helping me become a better educator. And so goes the circle of life in today's classroom.

Christina Cox – 21st century learning: teachers are you ready?

Holy Cross Junior High, St. John's, Newfoundland and Labrador

Overcome your fears. Take on teaching like you take on an adventure. Teachers like students must continue to learn throughout their career if they hope to stay relevant to both their students, and their profession. Technology can act as a common element, connecting teachers to their students and to each other, but providing one-to-one access to technology for students can be very costly for schools.

I recently had the opportunity to collaborate on a proposal for an Apple Learning Initiative Project with the Canadian Association of Petroleum Producers. Our proposal was accepted and Apple Canada loaned our school a portable learning kit of 10 Macbooks, 10 iPods, and an Airport, that allowed easy access to the Internet for four weeks. The key focus areas were attendance, project participation and feedback upon completion of work submitted.

Initial expectations revolved around responsibility, appropriate usage and project expectations. As security is also an element of the digital age, parents were sent a letter explaining the equipment and asking them to remind students about appropriate conduct when using and storing the devices.

The project began with a collaborative effort to create and launch a classroom blog using the free site **www.Kidblog.org**. Students were informed that all work for each class would be posted for review. They were expected to complete specific tasks, and to offer constructive feedback to other students.

Once students were comfortable with the technology, we ventured beyond the classroom. A number of field trips were arranged to explore careers in the oil and gas industry. The three classrooms involved in the project were sent to different career locations on different dates with iPods in hand. Students were expected to record material that could be brought back to the classroom and turned into a sharing video for the other classes. Through this approach, all students became exposed to the same material.

The project culminated in a Jeopardy style game show hosted by a local celebrity. There was a palatable sense of energy and enthusiasm both before, and during the game. Students created signs and cheers abounded. The whole school watched as the three classes competed to see who had learned the most about careers in the field of oil and gas. One class was declared the overall winner, but all students were given certificates proving that they were now career certified in oil and gas careers. In the end, everyone celebrated their success with a pizza party.

And so I pass on my biggest lesson: do not be afraid to try something new. Both your fellow teachers, and most likely your students will help you deploy technology in the classroom, and your efforts could lead to students that are revitalized and passionate about their learning adventure.

Adrian Deakin, April McKnight, Robert Striemer – The Shaftesbury High Altitude Robotics Project (SHARP)

Shaftesbury High School, Winnipeg, Manitoba

SHARP is not a course. There is no SHARP curriculum. No one passes. No one fails. No credits are earned. So what is the educational relevance of a project like SHARP? Learning, engagement, and fun.

SHARP is a collaborative science, technology, engineering, and mathematics (STEM) initiative involving a core of approximately thirty students aged 14 to 18, three science teacher coordinators and a broad contingent of experts including engineers, university professors, ham radio enthusiasts, a pilot, and a meteorologist. SHARP was born when Mike Friesen, Shaftesbury High School's former teacher librarian emailed a photo of the Earth from near space to science teachers. The team was so intrigued with the possibility of capturing our own photos that we put the question to our students: "How do we set out to get high resolution photos of the curvature of the Earth?"

Initially, the only goal of SHARP was for students to build a device, which would somehow get above Earth's atmosphere and take a picture of space. Since then, our team has embarked on two highly successful High Altitude Balloon (HAB) missions, buoyed by the enthusiasm of our students, the excitement of discovery, and the desire to outdo ourselves.

SHARP is an extra-curricular activity that is driven solely by student interest and supported by volunteer specialists. Formal teaching does occur, but for the most part skills are developed and knowledge is gained through experience. Each new mission begins with a meeting to debate ideas and set goals.

After months of preparation, students, teachers, and media broadcasting students travel to western Manitoba eagerly anticipating the SHARP mission. Final launch procedures are reviewed on site. On Launch Day, the sensors are powered up, the payload is assembled, and the balloon inflated. Pre-flight checks are made, and social media feeds are established. Amid rolling cameras the countdown begins: three, two, one, launch. Tension builds as everyone scrambles into their vehicles to be the first car to recover the precious package. The chase is on! En route, the team tracks the payload using amateur radio, GPS and the Internet. Developments are followed in real time back at the school and by a large number of parents and supporters via the Internet. Several hours later, the payload and data are recovered. A successful SHARP mission is much like winning a championship in a team sport.

Here's what we've learned with the SHARP Initiative:

1. **Think big.** Big projects create excitement, offer opportunities for broad and deep student engagement, and support the psychology of unlimited potential.
2. **Initiate.** Get started now. Good ideas need to be translated into action as soon as possible fostering positive risk taking and building momentum.
3. **Collaborate.** Involve as many people, organizations, and students as possible. Collaboration creates networks, strengthens communities, and produces outcomes that are greater and more powerful than any individual can imagine.
4. **Gather support.** Support for your initiative from your school's administration can act as a compass when you are looking for direction and a guide for diplomacy.
5. **Promote.** Promote your initiative at every opportunity. The essential people, equipment, and funding will present itself. SHARP has found supporters at schools, universities, amateur radio meetings, summer space camps, conferences on education, science symposiums, school board meetings, and car dealerships; through parents, newsletters, neighbours, philanthropists local media, educators, school trustees, city counsellors, astronauts, the Minister of Education, and the Internet.
6. **Persevere.** Embrace challenges. Nothing of significance comes without significant personal investment and without overcoming odds.

Lisa Kresky – Connecting with students inside the classroom and beyond

Maani Ulujuk Ilinniarvik, Rankin Inlet, Nunavut

I've often been inspired by the Latin proverb that states that "by learning you will teach and by teaching you will learn," but when I first moved to the North from a suburban town in southern Ontario, an experienced educator I worked with at the time put it a little more bluntly. "Keep your eyes and ears open, and your mouth shut". If you follow this philosophy, it is amazing what you can learn about the students, their families, and their lives. Following this wisdom, I have been able to connect with the students and help them develop as individuals.

As an educator, I begin connecting with my students and their parents, before school even starts. Each summer I send every student a postcard telling them that I am going to be their teacher and that I look forward to having them in my class. Within the first two days of school I call all the parents and send home course expectations. I meet with each parent and ask them to tell me more about their child and how they see their child learning best.

I've learned that it is never too late in the school year to learn more about your students and make their learning fun. Here are some activities that have worked for me:

- I create a PowerPoint presentation about myself at the beginning of the year to show the students pictures of my family and where I grew up;
- Students write daily journals and I respond;
- Students have created a playlist of songs that is played in the classroom during certain activities,
- Both parents and students get a monthly newsletter and have access to a website with information and homework activities;
- Every morning the class looks at local and national news together;
- I allow students' input into decisions such as deadlines for assignments;
- We visit the local trade school for a tour to learn about postsecondary options. I also invite many guest speakers to talk to the class about their career;
- We take field trips together, including trips around town and land trips to complement the curriculum such as berry picking and then making muffins, mussel picking, visiting the Matchbox Gallery and CBC radio, and curling;
- When we go skating, I time the students' speeds, and use those for lessons on decimals;
- I attend games when my students play in various tournaments such as soccer and hockey;
- Students are encouraged to participate in activities such as Northern Youth Abroad, Encounters with Canada, and Students on Ice;
- I integrate multiple intelligences into my teaching and do things like creating circumpolar world maps out of Rice Krispies and fondant;
- I've tried to make my classroom inviting and cozy, with couches, current magazines and a library with about 4000 books of varying levels to accommodate all the levels of learners;
- and much more ...

Carmen Gassi – The shortest distance between two points isn't always a straight line

White Oaks Secondary School, Oakville, Ontario

Learning is the journey, and like any journey, it can take twists and turns before we reach the destination. As teaching professionals, part of our job is to ensure our curriculum is delivered in a way that is meaningful for our students. We create, build and deliver our lessons in progression, with each building on the one before.

Knowledge is a step by step process, with each level building on what precedes it. This is a key element of the learning process – the cumulative effect of education. However, it is important to realize that the journey is as important as the destination. To be truly successful, students must engage in the learning process itself. When students take ownership of their own learning process, true knowledge is created.

While studying the music and musicians of Renaissance period of history, students in my grade 10 music history class became fascinated with the Medici family of Florence. This fascination resulted in a request to discuss the overall aspects of Florentine life versus specific Florentine musicians. Straying from my original plan resulted in the unit taking more time than originally planned, but also yielded incredible results. Students delivered presentations, mock interviews, puppet plays, newscasts and short films, all focused on life in the Renaissance period. With each group presentation, the creative process built upon itself.

The true value of this exercise lay not in Renaissance history, but rather, the way in which the class embraced the learning experience itself. While the Medici family was never meant to occupy as much class time as it did, encouraging students to determine how this unit should unfold allowed them to take ownership of their learning. Our curriculum path was not what I had planned, but after the Medici unit was completed, the class was anxious to begin studying the units that followed. We had no difficulty covering the remaining units in the curriculum and the detail was greater than I had anticipated.

We sometimes find ourselves moving in directions we didn't anticipate. As educators we must continue to guide the ship in the direction that our curriculum has charted, but we should never be fearful of tacking a bit to get there.

While the shortest distance between two points isn't always a straight path, it is educationally speaking, sometimes the most important path.

Kristy Kilpatrick – Creating communities, creating maps, creating a sense of place

Landsdowne Middle School, Victoria, British Columbia

A sense of place is more than a location on a map. It's a feeling of belonging to, and engaging with, your community. Creating a sense of place, is a concept I use to guide my teaching.

I teach grade six and we take many walks together. At this level, the socials curriculum is centred on global citizenship – but I believe that to understand the larger world, students must first have a sense of connectedness to their own environment. They must have that "sense of place".

For some students, their local environment revolves largely around screens: television screens, computer screens, cellphone screens. There is a disconnect between the scientific or social content that I urge them to learn, and their own day-to-day reality. The generation that I hope will be caretakers of the island they inhabit, and the ocean that surrounds it, is probably less connected to nature than any generation that has preceded them.

To help my students forge connections to the world around, I use community mapping. I was introduced to this concept by Ken Josephson, a guru of community mapping at the University of Victoria. One of the main ideas behind community mapping is to create a visual forum for story telling, a record of places that have meaning for people. I use community mapping to teach the diversity of life, adaptations, classification of plants, marine organisms and animals. Through community mapping my students are encouraged to think about what is important to them and their families, and they begin to understand the concept of what it takes to make a healthy community. We can then take that knowledge and use it to compare our daily life to other cultures, from the Inuit in the Arctic, to the tribes of Afghanistan.

Along with frequent neighbourhood mapping journeys through communities, watersheds, coastlines, we have brought the local ocean environment into our school through a seaquarium in partnership with the **World Fisheries Trust Seaquaria in Schools** program. Students can observe marine organisms first hand in this small-scale ecosystem. We also participate in an annual field trip called Eco-Rowing, a marine experience provided by a non-profit group called Seachange Marine Conservation Society where students spend the day on, and beside, the water learning about marine and watershed ecology.

Whether a quick walk in the neighbourhood, a longer walk to the beach, or an excursion farther afield such as Eco-Rowing, the outdoor experiences my students engage in lead to a greater degree of social and academic engagement. I have had students with learning and behaviour issues that thrive once transported to a natural environment.

Whether children live on an island, the prairies, or the mountains, providing opportunities for them to explore their natural world and their community, and in fact mapping it, will provide them with an invaluable sense of place.

Julie Lade – Seeing beyond ourselves: inspiring students to make a difference

Highroad Academy, Chiliwack, British Columbia

I wanted to be a teacher because I wanted to make a difference. As a young adult, I was able to take humanitarian trips to places as diverse as the Philippines and the Canadian Arctic. These experiences changed who I was and how I perceived the world. I wanted the same experiences for my students, allowing them to become life long active citizens who understand democracy in a more complete way, and how they truly can make a difference in the world.

As a humanities teacher, issues of citizenship and democracy are in our prescribed curriculum and outcomes. However, it has always been my goal to go beyond the textbook and show how learning is relevant and vital to real life, using current events, history, and literature to enable students to see the world around them in a way that would inspire them to make a difference.

In the classroom, we have taken advantage of programs like **Student Vote**, and invited our local politicians and candidates to our classroom for town hall discussions. Through these experiences, students began to understand the impact of a single vote, with some going on to join political parties and others plotting their own political careers.

I was able to lead school trips to the Thailand/Burma border where we worked in refugee camps, and to the Downtown Eastside of Vancouver, where we gave out care packages to the disadvantaged. We also went to our own inner city – a place our students did not realize existed. When we visited a tent community on the banks of the Chilliwack River, seeing people living in those conditions was an emotional experience for the entire group and they instinctively wanted to help. This venture, with this team of 22 teenagers led me to wonder, what would happen if we mobilized our entire K-12 school, even for just one day a year, in service to our community?

My administration agreed – on a trial basis. We chose the week of Earth Day, and I challenged all the teachers in our school to find something they could do with their students to make the world a better place. Our younger students visited seniors, baked cookies for the RCMP, and cleaned up local parks, while our middle school students planted trees, and created a community garden. Our high school students worked with local organizations: community services, the women's shelter, and the Salvation Army. Everyone came back tired, but with the sense they had done something that really mattered; they had done some valuable learning about the world around them; and they had built relationships with each other that they never thought possible. School-Wide Service Day has now become an annual event.

There were bumps on the road, and continuous improvement allows one to learn what works best, but overall, it has been incredibly positive on a variety of levels. I believe that all schools should consider similar initiatives as they teach our students the most important lesson of all: you matter, and you can make a difference.

Tanya Leary – The Mother Earth Mentoring Program

Waabgon Gamig First Nation School, Georgina Island, Ontario

Imagine a teacher who drives across a frozen lake to get to work. Imagine a teacher who brings owl puke and a dead porcupine to school to use in her critical inquiry lesson. Imagine a school with only 23 students and five staff on a remote island that doubles as an outdoor classroom.

These are day-to-day activities in The Mother Earth Mentoring (MEM) program. Using the earth as the classroom, a team leader and two classroom teachers, supported by enthusiastic school staff, parents, community members, Elders, and program mentors, spend their days planning, evaluating, assessing and documenting the program that stemmed from the book *Coyote's Guide to Connecting with Nature.* The team picked up this book, and never looked back.

Akinoomaagzid is the traditional name of the program which translates to "the earth is our teacher". This outdoor education-culture-nature-awareness-experiential-learning-critical thinking program has had an enormous impact on the school, its students and an entire First Nations Community.

The MEM Program uses the earth as the classroom, providing students with hands-on, minds-on learning experiences. Students are extremely engaged as they see, feel, hear, smell, and sometimes even taste their learning. Personal connections and strong inquiry-based learning skills assist students in discovering their unique gifts that are celebrated both in and out of the classroom as part of a learning community. Many of these gifts would have never been realized in a traditional classroom setting, like the persistence of a student who mastered the fire bow – a traditional (and matchless) method of starting a fire. Not only are students excited to come to school, parents report that after school rather than running to the TV or video games, their children *want* to continue their discovery from their school day.

The anecdotal results from MEM do not translate easily into data, but the evidence lies in the magic, the self-esteem, and the inquiry skills that have transformed the Waabgon Gamig First Nation School students. The teachers continue to ask themselves: How does one create culturally sensitive curriculum based assessment practices that do not slot students into boxes, but rather pedagogical practices that recognize both the uniqueness and academic progress of each student? And linked to this challenge is the question: How might one collect this data to supersede any romanticism and prove the success of the program? While mountains of work pile high for this team, the year-two goal for the MEM is to thoroughly examine standard assessment practices and work towards the development of a tool that integrates academic results, learning skills and the values of the Anishnaabe people. Elders continue to remind us that environmental education and sustainability are no longer a choice; they are imperative for the survival of our earth, and future generations to come.

What the team does know for sure, based on the term two report cards, is that academic marks are on the rise, seemingly through the creation of bright-eyed passionate learners.

Johanne Morin – Motivation on the airwaves

École l'Étincelle de Sainte-Marguerite, Sainte-Marguerite, Québec

Let's imagine a project ongoing for over 10 years while also meeting the motivation needs of the new generations. A project that adapts to pedagogical challenges, mobilizes a community and becomes an important ingredient of student success. This project is centred around a very easy medium to install: the radio. A complete, stand-alone radio station is installed in the school and its broadcasts are entirely conceived, produced and performed by the students.

What are the benefits? A rare and splendid opportunity to develop a wealth of skills that are part of the curriculum in a meaningful context. The radio has an unquestionable impact on students' success and their need to perform. The radio enhances each child's cultural background, develops listening skills, respect and self-esteem, fosters caring and cooperation. The radio fulfils the need to share and communicate. As a matter of fact, being able to choose the topic enables the student to express his or her interests and share personal experiences. This sharing awakens curiosity in a variety of research and news topics. In this context, reading becomes essential for appropriating knowledge in order to write accurate content and express oneself clearly. The student's motivation to develop these skills becomes intrinsic.

The equipment and the constraints related to delivering a broadcast allow feelings of technical and methodological competence to be developed. The active listening necessary for respectful communication leads to greater appreciation of self and others. Caring, effort and commitment guarantee the success of this work, which is rewarded by a daily broadcast to a precious listening audience: family and the community providing the student gratifying feedback through comments on the Web or in person back at home.

This practice could be implemented in all schools: for podcasts or as part of a project with highly suitable activities. To succeed, you have to believe in it and try, trust yourself and trust the children. You need to be surrounded by passionate partners, knock on the right doors and, above all, accept the imperfect. Then, you have to keep at it! Fortunately, the major challenges of the past pertaining to technical equipment and access to quality information are no longer an obstacle. The Internet makes a wealth of resources available for a highly motivating radio experience with a simple computer equipped with a microphone.

Of all the projects I have carried out over the course of my career, Radio-Étincelle is my favourite because it must have provided hundreds of students the opportunity to experience school differently, with motivation.

Jean-Marc Perreault – From the universe to the community

École secondaire de la Rive, Lavaltrie, Québec

It all started one evening when I was in a city park, alone and playing with my new telescope and some students who were not very attentive during our science class came to see me. They were curious to learn more about what I was doing. Astronomy is increasingly popular but still very mysterious for most people. Adding astronomy to my teaching activities enabled me to open my class to my entire community.

What are the benefits of this exemplary practice or project?

Offering astronomy activities makes it possible to establish early contact with future students when entire families participate.

Being able to handle the equipment and being able in turn to help others discover the universe makes the students feel appreciated.

These activities also make it possible to maintain contact with former students and preserve the feeling of attachment to their old school.

This also makes it possible to have more relaxed contact outside of school with the students' parents.

How can this exemplary practice be transferred to other educators?

The cost of an excellent telescope is now very reasonable, a rare example of deflation. Quality equipment is now very accessible to teachers who want to get started in this adventure. This equipment makes it possible to observe the sun during the school day with suitable solar filters as well as all the wonders of the sky at night.

Advice for success? Take advantage of local resources. There are astronomy clubs in all regions making it possible to acquire not only the necessary experience for using the equipment but also volunteers for holding activities. Never go into amateur astronomy, even for personal interest, without the valuable advice of experienced people.

On my website **www.ecolespatiale.com** (in French only), a section on astronomy offers advice to beginners as well as practical software in the download section.

Harriet Simand – Ban the Bag Brigade: environmentalism in action

The Bishop Strachan School, Toronto, Ontario

What happens when an environmentally dedicated grade six class takes on City Hall and the plastics industry? You get the **Ban the Bag Brigade**, formed by my grade six class, who appeared before Toronto City Council and organized their own media campaign to ban plastic shopping bags in Toronto. For their efforts, they received a Toronto Green Youth Award. The students also documented their campaign on film, and produced *Ban the Bag: The Movie* to teach other kids how to become environmental activists. Their movie was screened at the Sprockets International Children's Film Festival.

I believe that change only occurs when people are passionate about issues and take ownership of their cause. At the beginning of each year, we review a variety of current environmental problems. During our studies, one class became incensed by the number of plastic bags Canadians use and dispose of each year. They wanted to take action.

Students engaged in brainstorming discussions on the use of plastic in our society, potential solutions and how to take action. They started small; speaking at school assemblies and aiming to cut plastic use at school.

After some initial success, they began to think big. They dreamed of a city-wide ban, began planning a deposition before City Council. The students organized themselves into different task groups: identifying reporters who cover the environment, drafting and distributing press releases, arranging media interviews/public speaking, researching the science on plastic's impacts, finding like-minded organizations, and lobbying City Hall. Each group had a binder and computer space on our class Wiki. Students reported their progress to each other in regular meetings. The students made their deposition before the Toronto City Council's Public Infrastructure Committee, and reached their goal when the City of Toronto required stores to charge five cents for plastic bags beginning in June 2009.

The Ban the Bag project was integrated into almost all school disciplines, including reading, writing, math, art, technology, media studies, science, and social studies. Students read newspaper articles and research papers. They learned how to write letters to the editor and press releases. With their growing public voice, students understood that they had to be diligent in editing, spelling, grammar and topic sentences.

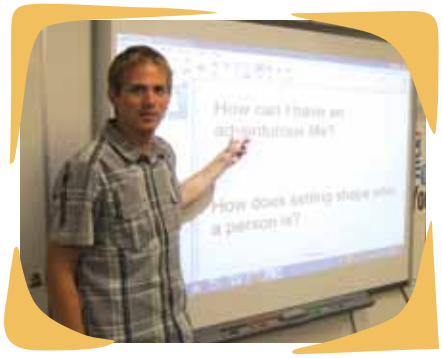
The students were interviewed by major newspapers and TV. They even bravely confronted a plastics industry spokesperson on CityTV. By being well prepared and passionate, they learned that even at age 11, they could engage adults and politicians seriously.

I strongly believe that we must respect children's voices – listening to their perspectives and engaging their passions allows us to create educational experiences that will last a lifetime.

Mayor Miller's words to the students validated the environmental leadership they had demonstrated: "It's going across Canada now because of what we did in Toronto and it had a lot to do with what your class did. You should be proud. Across this entire country they're going to charge for plastic bags and you had a huge impact to make it happen."

Jonathan Rempel – The path to engagement

North Surrey Learning Centre, Surrey, British Columbia



When I started teaching high school English at my first, full-time position, I inherited a filing cabinet full of teaching resources. It was a standard, four-drawer, ugly grey cabinet that I've seen in many other classrooms, and it had almost everything in it that I would ever need as a teacher. It was an easy start to what can often be a very hectic and frenetic induction to the teaching profession.

Unfortunately, about three months into this position I felt something that I didn't ever expect to feel as a new teacher – bored. And if I was bored, how much more bored were my students?! I was so disturbed by this realization that I started what would become a five-year journey to align my teaching with who I am. There were many rabbit trails and steep switchbacks along the way, but eventually I came to a conclusive insight – before I can truly engage my students in their learning, I have to first be engaged myself. I cleared three hurdles on my road to renewal: I had to become comfortable reinventing the wheel; I expanded my horizons; and, I incorporated my passions into my teaching.

When I was in the midst of my student teaching and on the verge of burnout, my sponsor teacher pulled me aside and gave me some much-needed advice, "Jonathan, you don't have to reinvent the wheel!" These words may have saved my student teaching experience. Five years later, I began to rethink the wisdom of this advice. Many of the old lessons I was using didn't seem to have any value for my students at the time or in the foreseeable future. When I realized this, I saw that many of the old paradigms of teaching were no longer adequately preparing my students for life. I decided to reassess the effectiveness of what was in that filing cabinet. So began the arduous task of reinventing my personal pedagogical wheel. After I cut my tether to my filing cabinet, I was not only much happier as a teacher, but my students started to become more engaged in their learning. Cutting the line to my filling cabinet increased the happiness of both myself, and my students.

Another milestone in engagement stemmed from my participation in the Learning and Teaching in Today's Classroom program. This was a two year, technology-focused, inquiry-based program that seriously expanded my horizons and opened up a plethora of pedagogical conversations that were happening all around me. If there is one word that encapsulates my time in this program it is connected. I was connected to people and ideas – both in the virtual and concrete world. These challenged me and taught me to connect my personal passions with my teaching practice.

I love English, teaching, and the outdoors. Over the last five years I've been gradually developing an adventure co-op program in which my students study English while connecting with the outdoor environment. As I bring my passions to the classrooms, I have become fully engaged in my teaching, and consequently, my students are fully engaged in their learning.

Resources

ORGANIZATIONS:

Canadian National Marsville

Director's Cut Media Literacy Foundation

EdGeo (Earth science workshops for teachers coordinated by the *Canadian Geoscience Education Network)*

Encounters with Canada

Let Them Be Kids Foundation

Northern Youth Abroad

Roots of Empathy

World Fisheries Trust "Seaquaria in Schools" program

World Wildlife Fund Canada

SOFTWARE

Camtasia

Desire2Learn

i-clicker Classroom Response System

iCommunicate

Keynote

Proloquo2Go

Sharepoint

WEB-BASED TOOLS

Dropbox

Earth Cam

GRAIL Moon Kam

Kid Blog

LiveTeacher

Prezi

Quiz Boxes

Skype

StopaBully.ca

Symbaloo

VirtualGuest

Wordle

www.ecolespatiale.com - website in French only

YouTube

Notes

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www.pma.gc.ca