TEACH

EDUCATION FOR TODAY AND TOMORROW

Crisis Intervention:
Is There Someone to Call?

The Watershed Project

The Virtual Teacher Centre:
Online Professional Development

[INSIDE
Reproducible Insert]

Contents

Tragedy. It has been with us this past year. As a focus of the community, schools are no strangers to extraordinary events that have a dramatic impact on its population. Unfortunately, children are left to deal with the fall out of such events. Since schools are stewards of our most precious resource, there are support mechanisms in place to help students, staff and the community deal with uncertain circumstances. To put it bluntly, suicides, murders, accidental deaths, shootings are among the issues that penetrate the school environment. Trauma is not easy to handle. Thank goodness then that schools and school boards have crisis intervention teams who provide support and counselling in times of distress. Thank goodness there is a plan to deal with these situations. We often read about unpleasant occurrences in another community and see that a crisis intervention team has been sent in. We are relieved, that situation is now under control We assume it's okay but we don't know necessarily who these people are, what they do and what services they provide. We don't know necessarily who is in charge and who controls the process. From the public's perspective, it seems a bit of a mystery.

Our associate editor, Jennifer Kavur has talked to those who have been involved in crisis intervention policy and acted during specific incidents. The article she has written helps peel back the cover a bit to reveal how this important process is activated and who the players are. Surprisingly, many of those involved volunteer their time and participate out of a concern for community need. Let us hope that none of us are drawn into this process but if we are, it is comforting to know that schools and school boards are ready to deal with the situation at hand.

Professional development for teachers is an ongoing challenge. We expect teachers to keep up to date yet the opportunities are de-emphasized or slashed by governments.

The Newfoundland/Labrador Teachers Association (NLTA) has launched The Virtual Teacher Centre, an online professional development environment where teachers may upgrade their credentials online, access a peer-reviewed lesson plan database and have a look at the latest research in hot topic areas. The lesson plan database is available to all teachers in Canada and is definitely worth a look. NLTA is surfing the technological wave as more and more teachers across the country sign up for professional development courses online.

The reproducible insert, CURRICULA, in this issue is The Watershed Project, which takes an in-depth look at watersheds, what they are, their importance to our overall eco-system and lays out some compelling activities you can undertake with your students in class. With heightened awareness around environmental issues, this lesson plan will serve your classroom needs well. Please read too, Richard Worzel's take on how to avoid the train wreck that might just be public education in this country. Richard's provocative comments and insights offer some hardheaded solutions and strategies. Painful choices must be made. ☞

Wili Liberman

Next Issue

- *Canada and the World: 50 Years of Achievement, Special bilingual issue produced in cooperation with the Canadian Studies Department of the Department of Canadian Heritage*

- *Multiple content areas will be explored that detail Canada's history, culture and successes domestically and internationally in the areas of Commonwealth relations, peacekeeping, immigration, human rights, entertainment, amateur sport and more.*

Info, Data, Stats and the News

2 New Magazines Allow Youth to Publish Their Work

Two magazines that give youth the opportunity to publish their writing and artwork have recently launched on the Web. Both publications are online, written exclusively by children, and available free of charge. Wet Ink Magazine *(www.wetinkmagazine.com)* is an online publication based in Vancouver that features literature, visual art, and multimedia by Canadians 13-19 years of age. The magazine does not ask for first North American publishing rights, so youth who have submitted content are free to also publish their work elsewhere. Wet Ink is published four times per year. KidsOnlineMagazine *(www.KidsOnlineMagazine.com)* accepts work from kids up to 18 years of age.

Every child who sends in a submission is guaranteed to have his/her work placed somewhere on the Web site. Any form of writing is accepted, including stories, articles, recipes, craft ideas, and poetry. The content of the Web site changes every month and the topics depend entirely upon what the children send in. The magazine does not publish personal information about the children and requires parental permission before posting anything on the Web.

Nikki (left) and Shana (right) Brumlow, creators of KidsOnlineMagazine.com

BC Initiates Technology Apprenticeships for High School Students

British Columbia has taken the lead on creating Information and Communications Technology (ICT) apprenticeships for secondary school students. The province has launched an "Information Technology Support Associate" pilot program, which makes use of a core curriculum and "real life" business simulation based on the Soft-ware Human Resource Council's (SHRC) Information Technology Professional Program (ITP). The program includes work experience and culminates at the end of grade 12 with a one-year apprenticeship placement with partner IT employers. The placement will lead to certification and provincial accreditation that will grant students employable skills anywhere in the country. This program is the first of its kind in Canada, and classes will begin in September 2002.

Shrinking Teacher Base Could Impact the Quality of Education in Canada

A new study entitled "The ABC's of Educator Demographics" found that the labour shortages that are predicted to occur when baby boomers begin to retire will actually hit the education and training sector first. While the average age across the overall Canadian workforce is 38 years, the study found that close to 50 percent of secondary school teachers are already 45 years of age or older – in a sector where the average age of retirement is 55. While Canadians spend more on education and training than they do on any other sector (save health), the report provides a national snapshot of declining educator demographics. In addition to the central findings, the study's authors also report some regional differences, forecasting greater increases in demand for teachers in Alberta and BC where populations continue to grow at above the national rate, and declining demand in Quebec, Newfoundland, and PEI. The study also identifies the pressing need to address the current low Aboriginal representation in the educational profession, especially in Saskatchewan and Manitoba, where Aboriginal children account for over 21 percent of the total population of children. "The ABC's of Educator Demographics" was produced by a group of national education and training associations, and was facilitated by the Canadian Alliance of Education and Training Organizations. To read a copy of the report, visit *www.caeto.ca*.

The TELETOON Creative Sparks School Program

The 2002/2003 school year will mark TELETOON's fourth annual Creative Sparks School Program. Designed by TELETOON to support and promote the study of the arts, Creative Sparks is a companion to the standard school curriculum for grades 4-6. Prepared by experienced educators, the program includes sections on Language Arts, Media Literacy, Science & Technology, and the Arts (visual arts, music, drama, animation). From September to March, teachers and their students work through the lessons and worksheets supplied in the Creative Sparks binder to create a story and storyboard. TELETOON provides incentives throughout the school year to encourage the students to continue the steps of the program. In April, the completed story and story-board can be entered into the Creative Sparks contest, where students compete to have their cartoon animated and broadcast on the TELETOON channel. The two runners-up receive an animation work-shop conducted at their school by a team of professional TELETOON animators. Sandylion Stickers will provide additional materials for the upcoming 2002/2003 edition of the program. For further information, call 1-888-884-8666, or visit *www.teletoon.com*.

Notable Sites for Teachers

By Marjan Glavac

Book Adventure

http://www.bookadventure.com/

The Book Adventure site is a free reading incentive program dedicated to grades K-8. Created by the Sylvan Learning Foundation and sponsored by well-known educational associations and corporations, it is designed as a resource for both teachers and parents.

Kids have over 5400 titles and descriptions of popular books to choose from. They read the books offline, and when they've finished a book, they can return to the site and take a multiple-choice quiz for a prize incentive.

The Teachers Lounge is a great resource for creating reading lists for students. The Book Finder tool allows you to search over 5400 books by grade level (K-8), reading level, fiction or non-fiction, genre (37 categories), title, and ISBN. Search results can easily be printed out as a reading list for teacher reference, or for student and parent use. There is even a tool for printing out labels to help you identify books in your class and school library.

Teachers who register themselves and their classes are able to view and monitor either class or individual student progress. Class reports can be selected that list the total books read, last book quizzed, and date/score of the last quiz taken. Any prizes students' earn can also be viewed and either approved or not approved by the teacher.

This site is well worth the time to check out for extensive reading resources and a different type of reading incentive program.

HPR*TEC

http://hprtec.org/

The High Plains Regional Technology Education Consortium (HPR*TEC) was formed to help teachers and other educators create, share, or find solutions to problems they encounter when integrating technology into education. With a region covering 2.7 million students and 173,000 teachers, HPR*TEC offers a tremendous network of experts.

In "Network of Solutions," there are links to such areas as: Profiler, an online collaboration tool to strengthen your school district's ability to share expertise; RubiStar, a tool to help teachers develop rubrics without having to start from scratch; TrackStar, an online interface to organize online resources and file them in a Track-Star database; *www.4kids.org,* a kid-safe spot where a weekly newspaper features three or four fun and educational sites for kids; www4teachers, an indexed collection of online resources made-by-teachers-for-teachers; and Edlines, an educational Web-based newsletter.

By far, one of the most innovative and useful features of this Web site is the TrackStar feature. TrackStar is a program that allows teachers to organize a collection of Web sites into an interactive, online presentation. It is a Web-based lesson plan maker. All lessons are searchable by keyword, subject, grade, themes, and standards. You'll find some great ideas here, plus a lot of opportunities to create and share some great lesson plans for other teachers in the Internet community.

Tapped In

http://www.tappedin.org/

Tapped In is a Teacher Professional Development Institute that helps teachers find the time to participate in high-quality professional development activities. It's also a way of maintaining support for teachers after a workshop and encouraging sustained interaction among participants. This is a teacher community where teachers with diverse interests, skills, and backgrounds can meet and learn from one another; where teachers can be exposed to not one, but many education reform concepts and approaches; and where teachers from across the country and world can find high-quality resources in minutes, rather than hours.

How is this all done? By MUVE (multi-user virtual environment) technology. Although the technology sounds daunting, it's really pretty amazing stuff, and you don't have to be a techno wizard to use it. MUVE combines the convenience of a chat room with the versatility of a real-life classroom. You can talk in real time, use a whiteboard, project notes, and even share URLs to everyone in the room to see.

To help you get the most out of your Tapped In experience, there is an extensive FAQ section and extensive Help Guides and Tips. With over 8000 members made up of K-12 teachers, Staff Developers, Preservice Teachers, School Administrators, Education Researchers, Librarians, and others, there's a good chance you'll learn something new and bring back a different perspective to your class and school.

The Copernicus Education Gateway

http://edgate.com/

The Copernicus Education Gateway is a handy portal to educational resources for educators, students, and parents. A handy drop-down Education Resources menu allows you to quickly go to the following topics: Research Center, Teachers Toolbox, Current Events, Discovery Adventures, Creative Zone, School Athletics Center, and Music Hall. If you need to look up a keyword or subject not found in the Education Resources menu, use the handy search engine. The search engine allows you to search the Encyclopedia Britannica, Infoplease, and the Internet. In addition,

there is a Today's Feature section with links to timely topics.

The Research Center offers links to school subjects such as the arts, computers, geography, health, history, law, math, and science. Other useful resources include dictionaries, general reference encyclopedias, online museum directories, and libraries. The Conversions, Translations, and Other Practical Information section yields links to online dictionaries and translators, a braille translator, and a "flags of the world" site with information covering 13,100 pages about flags and more than 23,500 images.

If you need more resources for your lesson planning, head over to the Teachers Toolbox link and read about curriculum development and lesson plans, educational site reviews, technology in the classroom, professional development, grant information, special education and gifted programs, worksheets and downloadables, Webquests, and safety online.

For something different and creative, click on the Creative Zone. You and your students will certainly enjoy the many wonderful and creative ideas available from the world's best art museums, creative writing, dance, theater, and filmmaking sites. In the Theater and Filmmaking link alone, there are great ideas for in-class student drama performances, an online guide to Shakespeare's significant plays, a hands-on tour of the filmmaking process from start-to-finish, and a site that teaches you about how television, movies, and video games are marketed.

This is one site that should be bookmarked and visited often.

ePALS Classroom Exchange
http://www.epals.com/
ePALS Classroom Exchange is the world's largest online K-12 classroom network, connecting more than 61,000 self registered classrooms with more than 4.4

million students in 191 countries around the world. Online since 1996, ePALS is currently available in English, French, Spanish, German, Portuguese, Japanese, Chinese, and Arabic.

The main purpose of ePALS is to encourage teacher and student participation with other teachers and students anywhere in the world. In just a couple of minutes, teachers can register their classrooms. A free ePALS membership comes with access to features such as email, chat rooms, electronic greeting cards, and discussion boards.

Two teacher/parent monitored email accounts are available: SchoolMail and an ePals.com Web-based account. With either of these accounts, an adult can preview and approve every message sent to or from the child before it reaches its recipient. Aided by sophisticated filtering tools, the special filters quickly preview messages for inappropriate content before they are delivered to their recipient. If a message is questionable, it can be held or deleted instantly. The person who is monitoring the account has total discretion over how tightly to control it. This is one option for parents and teachers who wish to ensure a safe Internet experience for their children and students.

Check out other tools such as Instant Translation and World Maps, and teacher resources such as Group Projects, Class-to-Class Projects, 20th Century Retrospective, and more.

Once you log into ePALS, you'll quickly realize why this site is the world's largest online collaborative classroom network.

Surfing The Net With Kids
http://www.surfnetkids.com/
Barbara J. Feldman, the creator of Surfing The Net With Kids, has combined her skills and experience as a programmer, computer consultant, newsletter publisher, shareware author, mom, and syndicated newspaper columnist to produce a first-rate Web site for families and kids. Every week, Barbara writes site reviews for kids and families based on a theme.

The Web site reviews are listed under the following categories: Arts, Crafts, Music,

Computers and Internet, Games, Hobbies, Sports, Geography, Holidays, History, Bios, Language Arts, Math, Parents and Teachers, Preschool and Kindergarten, and Science and Animals.
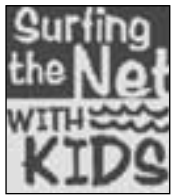
Reviews are also available by keyword search or a popup menu. Each theme has up to five site reviews based on a rating system of spectacular (five stars), wonderful, (four stars) and great (three stars). There is even an Honorable Mentions section listing links to new discoveries or sites that didn't make it into her newspaper column because of space constraints. There are also links to reader suggestions, toys, books, and jokes all related to the theme.

Other features listed include a calendar, forum, and newsletter. The calendar is updated weekly and lists important dates, major holidays, and anniversaries. It also links to educational Web site reviews and contests of interest to parents, teachers, and students. The forum is a discussion board moderated by Barbara. The free semi-weekly newsletter keeps readers in touch with the best online sites for families and classrooms.

This is a wonderful site for teachers looking for carefully reviewed, theme-based and rated Web sites for their students.

Mr. Marjan Glavac is author of "The Busy Educator's Guide To The World Wide Web" and a teacher based in London, ON. He can be reached at **marjan@glavac.com** *or* **http://www.glavac.com**

Avoiding a Train Wreck
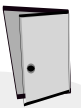
Here's what's coming for education in Canada: the aging population is putting financial and electoral pressure on politicians to spend more on health care and pensions, and cut back elsewhere, particularly education, which is the second largest provincial spending program. Next, we are losing too many teachers to retirement, and too many young teachers are dropping out because they can't stand the teaching environment. This means we are going to experience a desperate teacher shortage. Third, technology is intruding into the classroom, sometimes constructively, sometimes not, but it is coming, like it or else.

Finally, and most importantly, education is the single most important factor in determining how well Canada and Canadians will live in an increasingly competitive world. The traditional factors of production – natural resources, capital, and labour – are no longer important, but knowledge and the ability to put it to use are key. Yet, while everyone, including the politicians who cut education budgets, mouths platitudes about how our children are our future, political imperatives seem to mandate sacrificing education and letting the future take care of itself.

Summing these things up seems to indicate that we are headed for a train wreck, the virtual destruction of Canada as an economic and social force. Does it have to happen this way? I don't think so. Here's what we – particularly you – could do about it:

First, the most visible crisis in education is the looming shortage of teachers, not only here, but throughout most of the developed world. This shortage will eventually force legislators to pay attention to education, and will give educators the opportunity to propose a more inviting environment for young teachers. To produce this change, here are steps that I believe need to be taken:

• Educators must be willing to be accountable for, and measured on, their performance, just like everyone else in today's society. This means no promotion through seniority, but reward for merit and results. This creates an environment where teacher compensation can grow beyond current (inadequate) levels, where poor teachers can be fired, and where the public can be shown that teachers are performing. I would strongly suggest that teachers come up with a convincing and independent yardstick for measuring performance, or be stuck with standardized testing.

• Educators must embark on an on-going public relations campaign in order to explain why education is important, and how educators are trying to help society. Most union leaders are a PR disaster for educators, coming across as strident, selfish, and unattractive. You would be better served to hire spokespeople who are photogenic, articulate, and thoughtful, because what the public sees on television creates the image that they hold of teachers. Right now, you are losing the PR battle badly.

We are losing too many teachers to retirement, and too many young teachers are dropping out because they can't stand the teaching environment.

• Teachers have to do something about the impression that they work nine months of the year, but are paid for twelve. I know that's not the case, but it is probably the single biggest reason why people think teachers are lazy. Why not push for year-round schooling where teachers are paid only for those terms in which they

By Richard Worzel

teach? This offers you more flexibility in planning your year, and would do wonders for your public image.

• Young teachers shouldn't be stuck with all the nasty, undesirable jobs, because it scares them away from the system. Instead, this kind of work needs to be shared around. If you're an experienced teacher, you can probably, with great justice, say that you've done your share of such work, and it's someone else's turn. You can be right – and still do great harm to the system.

• Parents need to become more active in defending the education system, and teachers need to advise them on what the issues are, and whom they should lobby. Start educating parents that if they want their children to be employable, they have to fight for a system that educates them well. Parents (and grandparents) are more politically important than teachers, so enlist their help.

Next, technology is becoming a factor in education, so we need to ensure that it is a positive influence, and not a distraction or waste of resources. There are a scattering of school boards across the country that are experimenting with putting courses online, especially at the secondary level where students are more capable of self-directed learning. Properly implemented, online courses can fill in the gaps in your school, allowing a small rural

school, for instance, to offer creative writing or calculus to the handful of students who want it. They can also allow students with physical or emotional disabilities to take courses, continuing education students

---

The future of education may turn out to be a train wreck, but it doesn't have to be.

---

to pursue their diplomas, and immigrants to integrate more easily into Canadian society. Teachers can use them as day-by-day lesson plans when they teach a new subject. Online courses can fill in many of the cracks that are appearing in our system – but only if they are intelligently designed, constructively used, and shared across jurisdictions.

Since technology is coming, it will be better if we figure out how we want it to arrive. Clearly, we don't want it to replace teachers. Instead, we need to

use it to free teachers up from some of the administrivia that clogs their days, from the routine teaching of material, and give teachers the time to work with small groups and even with individual students as tutors, mentors, and trouble-shooters. Yet, too often teachers and administrators either try to shoot technology leaders (because teachers dislike technology, and don't want to appear ignorant), or expect miracles and want to bitch without being constructive. Instead, you need to work with technology leaders (who may be IT people, other teachers, or even students) to find out what's possible, give them feedback about what's desirable, and work with them to create systems that are supportive.

Finally, we need to redesign teachers' colleges. What we have now is little more than a hazing ritual designed to make it difficult to become teachers without imparting useful skills. Teachers' colleges

should start with in-class experience as student teachers, then go to theory, then back to the classroom, then back to theory, and so on. The theoretical garbage that most colleges impart now is too often a waste of valuable resources that doesn't give new teachers skills they can actually use. Fix them or flush them.

The future of education may turn out to be a train wreck, but it doesn't have to be. Talk about these issues at your next PD day or professional conference. Maybe my solutions are wrong, so come up with ones of your own. Think about it – because, working or retired, you are going to live in the society our education system produces. ✍

Futurist Richard Worzel lives in Toronto, and volunteers his time to speak to high school students as his schedule permits. Contact him through this magazine, or at futurist@futuresearch.com.

September 11-Teachable Moment or Pandora's Box?

By Gwen Duck

A new resource for Secondary Social Science classes may help you decide.

There is seemingly no end to the war and conflict raging on our planet at any given time. For many of us, the tragic events of 2001 brought home the need to pay attention to this fact and to the underlying causes of violence and war at home and around the world. As teachers, we recognize not only the influence these events have on our students, but also the role of education in creating systemic change within a culture. We know that a "teachable moment" has occurred. We have an opportunity to help students reflect, react and find meaning in the wake of these events and engage in the broader exploration of our place in this world and the forces that shape it. But where do we start? How can we help students to become active global citizens, to respond to conflict with methods other than violence, and to recognize injustice locally and globally and act upon it responsibly? Many of us feel ill equipped. It seems to require a lot of background knowledge to tackle these issues effectively, and where do they fit into the Ministry course requirements? Unfortunately, the "Big Issues" may end up taking a back seat to the demands of the day.

Identifying the need for 'easy to use' teaching tools to address 'difficult to deal with' issues, Classroom Connections has undertaken the development of a new resource project focusing on issues of Peace, Conflict, and Global Citizenship. The *Cultivating Peace* initiative is a series of educational resources that provides teachers with mechanisms for tackling the "Big Issues" within the curriculum. The first Module in the series, *Cultivating Peace* in the 21st Century , is a ready-to-use set of activities that examines the basic concepts of peace, why we still don't have it, and what we need to do to get it. It is designed to have applications in Social Science and Canadian/World History curricula across the country at the Grade 10 – 12 level. To make it as easy to integrate

as possible, the lessons are complete with ready-to-copy student materials, video components from the National Film Board, full teacher instructions, and suggestions for evaluation. In addition, all materials are modular, allowing you to integrate the complete unit or choose individual activities. *Cultivating Peace* in the 21st Century will be available for delivery to schools in August 2002 and available online in June 2002. As well as providing online versions of all developed resources, the Web site has an extensive database of related Web sites and support materials, as well as a student area and a teacher idea sharing feature. Go to *www.cultivatingpeace.ca* for updates, links, resources, and full project information.

The *Cultivating Peace* project is being developed under the direction of Classroom Connections, a non-profit organization dedicated to supporting public education in Canada. (*www.classroom-connections.com*). To undertake this project, Classroom Connections brought together Boards and Districts of Education, Peace Organizations,

Faculties of Education and Global Education consultants from across Canada. The initial Modules are being made available to schools through the generous financial support of Citizenship and Immigration Canada and the Department of Canadian Heritage.

Keep checking the Web site (*www.cultivatingpeace.ca*) for new developments and look for Module 2 in your school starting August of 2003. While the first two Modules are being developed at the Secondary level, funding is currently being sought to expand this initiative into the Elementary grades.

Hopefully, the *Cultivating Peace* project will help provide the tools and motivation to tackle the "Big Issues" with our students more confidently. Moreover, it will actively engage us all in the search for a Culture of Peace in our homes, our schools, our neighbourhoods, and our global communities. Cultivating a Culture of Peace starts with education. It starts with us.

"A culture of peace will be achieved when citizens of the world understand global problems, have the skills to resolve conflicts and struggle for justice non-violently, live by international standards of human rights and equity, appreciate cultural diversity, and respect the Earth and each other. Such learning can only be achieved with systematic education for peace" (*Hague Agenda for Peace & Justice for the 21st Century*).

**All school boards that are registered with Classroom Connections will be sent this free resource in August of 2002. To find out if your Board or District is registered, please phone 1-888-882-8865.

Gwen Duck is head of Student Services and Co-op at Anderson Collegiate and Vocational Institute in Whitby, ON in the Durham District School Board

CLASSROOM CONNECTIONS

Crisis Intervention:
Is There Someone to Call?

By Jennifer Kavur

Tragedy is with us. It permeates society, and schools are no exception. So, what does a principal do when a crisis occurs? Who, if anyone, is called in to help? If a crisis takes place in your school, are you prepared to handle it?

The central figure of a school's crisis intervention plan is usually its crisis response team. In Ontario, a crisis response team commonly consists of a dozen or so school board employees – guidance counselors, psychologists, teachers, social workers, administrators, and pastoral workers. It will also include experts from the community, such as funeral home staff, police officers, religious consultants, and members of local mental health organizations. "The team members vary from board to board, but typically they include board support staff as well as staff from the community," says Phil Hedges, president of the Ontario School Counselors Association (OSCA).

"School boards are very particular about choosing the members of such a team," says Ruth Consenheim, former executive assistant at the Ontario Teachers' Federation. They look for individuals with special skills, experience, and a particular expertise, and then invite them to join the team. These volunteers are not paid for participation, and so if they decide to help, it is usually because they just care. After accepting a position, a volunteer goes through a sturdy training program, after which he/she is placed on 24-hour call.

Community service groups may also volunteer their help. Trish McCracken, a retired teacher/counsellor and former OSCA president, says that in Orillia, "The North Simcoe Victim Crisis Services, a group of adult volunteers with community awareness training and a bit of training in basic communication and attentive listening skills, is called in to assist students when a school-based problem surfaces. Also, Kinark Youth Services does things inside Simcoe schools regarding crisis intervention."

A family of schools often shares one regional team, and some teams respond to as many as four regions in a district. They are assembled and managed by local school boards, rather than regulated by the Ministry. "In many cases," says Hedges, "there is a board-wide team and a board plan. Individual schools may also develop their own plan." Don McLean, superintendent of education in Ontario's Durham District School Board, says: "We have district wide policies and guidelines for dealing with emergency situations. Schools work within the expectations provided in those documents, but make modifications to deal with the specifics of their school site."

When a crisis occurs, the first thing a school will do is determine whether a crisis team is necessary and should be called in. Generally, the school principal or superintendent makes this decision, in consultation with the school staff. Teams are most likely called in to handle the death of a student or staff member. George Dimitroff, school board psychologist, says that there are two main types of crisis response. A primary response occurs when a student or staff dies or is injured. A secondary response takes place when a student or staff member knows someone (such as a parent) who has died or been injured.

Crises generally fall under health and safety or facilities issues. Teams will respond to illness, injury leading to death, death by suicide, traffic accident, and homicide, as well as news events and community alerts. "Copycat" crimes, instances of bullying, and issues of race, gender, and equity may also be reason for schools to call in a team.

When a crisis team responds to a school, it does so to assist the school rather than take charge of the situation. Hedges says that in many cases, there are already staff at the school who can handle the situation, but often additional staff are needed. "In most cases," he says, "the teams would see their role as one of assisting whatever staff are in place in the school. Generally speaking, students are going to be more comfortable with staff members they know. Teams may provide support to the staff members who provide direct support to students."

For example, a student becomes ill, stops attending school, and then becomes hospitalized. At this point, a team would be called in to do the consultation work. If the student eventually dies, the team would have a meeting with the school staff to share this information and figure out how to inform the rest of the community. In another example, a student dies unexpectedly in a car accident. A team would be called in to contact the student's family, clean out his/her locker, and make referrals.

Crisis response teams began forming in schools in the 1980's. Before then, says Hedges, schools did not play a formal role in responding to traumatic events. But over time, says Dimitroff, schools began to realize that traumatic events, if not properly and promptly responded to, could lead to very stressful and damaging long-term effects. Also, as society was evolving into something more complex and, in certain cases, more violent, schools needed to find a way to adequately respond. Consenheim agrees: "There is a lot of strife out there in society, and students have started to let out this strife in their schools." On a more official note, she reports, "Crisis teams spawned out of Ontario's Bill 82, which was implemented in 1982, out of the needs for special education students and growth in professional development."

However, some schools still don't have a crisis team to call. Aurora High School in York Region is one of them, and in the past year, it had to deal with a major crisis on its own. Pat Hayes,

head of guidance at the York Region school, tells the story of how her school successfully handled the situation, despite the absence of seasoned team.

The week after March break, a student committed suicide. The school called in their chief psychologist from the school board and three members of local churches from different denominations. They announced to students that there was a special room designated for them to visit and speak with guidance counselors about the tragedy. The school went easy on students skipping classes that day, and counselors "floated" the halls. In the first hour of the announcement, only a handful of students visited the special room, which housed the pastors and the psychologist. Later in the day, however, about 30 students filled the room. They ended up forming two circles, one for each denomination. The psychologist moved to a separate room to speak with the students most affected by the crisis, such as the deceased student's best friend and girlfriend. The guidance team, in the meantime, was busy calling the parents of high-risk students. After the funeral, the student council held a memorial service over the PA system. The school also emptied a display window for the students, who filled it with flowers, poems, and a card that was eventually given to the parents.

Hayes' experience taught her many lessons. "Whatever you do will be wrong," she says. She warns schools to neither overreact nor dismiss a crisis, but admits that this delicate balance is difficult to obtain. Some parents complained that the school didn't do anything, but Hayes explains that it is awkward for a school to advertise the work they do in situations like these, and oftentimes, the school must maintain confidentiality. Other parents were upset, however, because they felt the school did too much. "You will never do it right," she says, and be prepared to hear it.

Another piece of Hayes' advice is to let students know that whatever they feel is okay. Students will react in all sorts of ways. Some will act like they don't care to cover their emotions, others will have a nervous reaction and laugh, some will become useless and unable to do anything at all, others will experience flashbacks to their own past crises, and some kids will suddenly care very much about a student they never even knew. The latter is problematic because it may propagate a fight. Hayes says that the students who were friends with the deceased became extremely angry with those who weren't, feeling that the other students had no right to be so emotional.

Don't forget about the teachers either, she adds. Teachers will be there to help the students, but sometimes they need just as much help themselves. Many will respond in ways similar to the students, and some will not be able to teach.

One of the ministers called in to help, notes Hayes, was also a father of one of the students. Because he was a familiar face, she says, many students felt comfortable opening up to him. Hayes feels that students are more responsive to individuals they know

> *"No matter how much training or experience you have, every time you deal with a tragedy, it is different"*

than strangers, and suggests that schools keep this in mind. Another successful move, she states, is to let the students have some control, such as letting them hold a memorial service, design a card for the parents, and create a memorial display.

Finally, Hayes reminds schools that while they must offer their support and understanding, they must also bring closure to the event. This, again, is a fine line to draw, especially when a month passes by and your students are still quite upset. "You need to be thick-skinned to do this type of work," she concludes.

"Whatever you do will be wrong"

When asked for a suggestion on how schools can better prepare themselves to handle crisis situations, McLean replied, "Obviously, being proactive with respect to planning, prevention programming, and continuously reviewing your current practices to ensure they are the best they can be helps a great deal." He points out that unfortunately, some crises cannot be prevented (e.g. death by illness).

Hedges offers similar advice, saying, "The key is to make sure there is a plan in place. The worst time to decide how to respond is once a tragic event takes place. There should be a brief review of the 'plan' every year so that all staff are aware of who will do what."

McCracken has found a specific problem with the system, which she believes needs to be fixed: "At the Toronto District School Board,
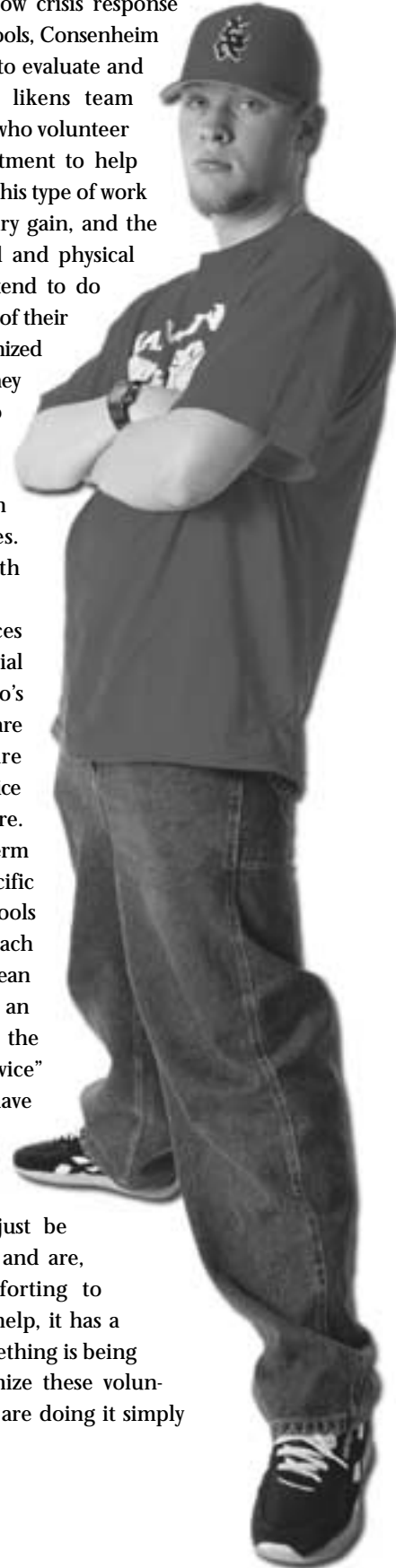
crisis teams are called into schools, but the school staff counselors have not traditionally been included…I think that is a problem for on-going assessment of needs and provision of support."

"No matter how much training or experience you have, every time you deal with a tragedy, it is different," says Consenheim.

As far as problems with how crisis response teams handle situations in schools, Consenheim replies that it is very difficult to evaluate and criticize these people. She likens team members to "steady soldiers" who volunteer their spirit, will, and commitment to help those in need. They don't do this type of work for personal glory or monetary gain, and the work is filled with emotional and physical stress. Since team members tend to do this work out of the "goodness of their heart," how can they be scrutinized and held accountable? And if they were, would they still want to do the work? However, if crisis teams need to be evaluated for accountability's sake, then there has to be resources. "Anyone can do more with more resources," she adds.

The call for more resources is a familiar sentiment. Social services are no longer in Ontario's schools, guidance counselors are fading away, and nurses are already extinct. Community police officers are also becoming rare. These officers sign up for a term of 2-3 years to visit a specific school on a weekly basis. Schools that have two officers, one of each sex, are particularly lucky. McLean reports that his district has an "excellent partnership with the Durham Regional Police Service" and is "fortunate enough to have community liaison officers connected to our schools."

More can always be done, but for the moment, let's just be thankful to those who have, and are, doing something. It's comforting to know that if a school needs help, it has a team standing by to call. Something is being done, and we should recognize these volunteers who, for the most part, are doing it simply because they care. ✐
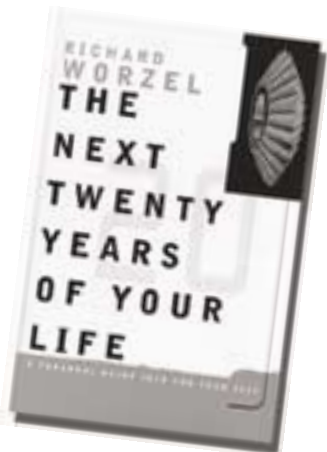
The Watershed Project

By Jean Greig

There is a small creek that flows through the east side of Peterborough, Ontario. Most people wouldn't know it is there at all. Known locally as Curtis Creek, it has all the unappealing characteristics of a neglected urban stream: cloudy water, algae-covered rocks, litter along the shoreline. Forgettable.

But follow this creek from the bridge up to its source and down to its mouth, and you will discover some amazing things. Curtis Creek begins about five kilometers northeast of the city, collecting water from a number of small wetlands tucked into parallel low places in the land, relics of the trough and ridge topography left behind by the glaciers 12,000 years ago. The creek eventually gathers in one of these troughs and flows across farmland towards the city.

Once in the city, Curtis Creek widens into a good-sized pond, the only visible evidence of a now-defunct brickyard. What was once the digging works is now full of water and home to an astonishing array of wildlife, including several species of frog, dozens of painted turtles, several types of warmwater fish, and birds of many descriptions.

As it continues on from the pond, Curtis Creek runs up against the Trent Canal, part of the historic Trent-Severn Waterway constructed around the turn of the last century. Curtis Creek actually passes underneath the Waterway, flowing through a culvert built under the raised canal -- an unusual bit of engineering.

The creek then winds through a residential neighbourhood where creative homeowners have incorporated the watercourse into their yards with bridges and decks. Finally, the creek disappears underground for the remainder of its journey to the Otonabee River, its final destination. Emerging from a culvert some twenty feet above river level, Curtis Creek makes a spectacular waterfall during spring runoff or heavy rain storms.

Physical geography, ecology, cultural history, engineering, urban land use – this at first unimpressive creek has a lot to reveal. Follow any other watercourse from source to mouth, and it too would reveal a multitude of stories.

Of course, the story of Curtis Creek – or any other watercourse – doesn't involve just the water. The land around it is important too. In fact, it is the entire area of land that drains into the creek that provides the context for the story – the watershed.

In geophysical terms, a watershed is an area of land from which all water flows in the same direction to a common outlet. More simply, a drainage basin.

But the term has come to embody more. A watershed is a region, a division of land, within which all the activities – physical, biological, chemical, cultural - have an influence because of their common link, the water. Thus, soil types, vegetation cover, wildlife, natural resource extraction, human development, the accumulation of historical events, and a thousand other factors combine and interact to define the watershed.

The concept of a watershed is interdisciplinary and complex. This can make it a difficult and intimidating topic to tackle. But the concept can be simplified and used as a useful tool in teaching about land, nature, and the interaction of humans with their environment.

First of all, consider that watersheds exist on many scales. At one end of the spectrum are huge systems such as the Great Lakes-St. Lawrence drainage basin, which covers some 1,344,000 square kilometers and contains approximately 25 percent of the world's fresh water and the homes of about 45 million Canadians and Americans. At the other end would be a small local creek, whose watershed may cover only a few dozen square kilometers. Even a network of tiny rivulets all snaking across a schoolyard towards one storm drain could be considered a watershed, on a micro scale.

Like the famous Russian nesting dolls, watersheds of increasingly larger scales fit into each other to form larger systems. So, a small creek has its own watershed, which is part of a larger river's watershed, which may be part of a still larger system. Generally, larger systems are called watersheds and their smaller components are referred to as subwatersheds.

No matter what the scale, all watersheds have some common properties and processes. [See sidebar: Watershed Properties and Processes.] Thus, in any watershed there are heights of land which define its boundaries, small tributaries which feed into larger ones, a single direction of water flow (downhill!), and a common outlet. Processes such as water flow, erosion, or flooding work essentially the same way, whether you are looking at a minor creek or a major river system.

Looking at landscape in terms of watersheds can bring a new perspective. Take the Peterborough example again. On the surface, the city of Peterborough is a network of roads and buildings and open spaces. But mentally lift that human environment off the land, and what lies underneath is a landscape whose shape is defined by the Otonabee River running north to south, and the nine creeks that join the Otonabee from the east and west. The heights of land, the slopes, the ravines, the wet places, are all defined by the network of watercourses that come together in this area of land. Replace the built environment, and the natural landscape is still there underneath.

The concept of watershed brings to life that oft-quoted ecological motto: "Everything is connected to everything else." Due simply to topography and the undeniable principle that water always flows downhill, what happens at the top end of a watershed will often have consequences further down the line. Hence, disastrous flooding of the lower Ganges River in Bangladesh can be linked to deforestation hundreds of kilometers upstream on the slopes of the Indian Himalayas. On a more local scale, water quality in the creek that passes two blocks from your school may be affected by fertilizers running off the lawns of a residential development two kilometers upstream. Or the healthy state of the river running through your town may be a result of well-protected forests in the headwater areas.

From a teaching perspective, perhaps the most useful aspect of the watershed concept is that it can make learning locally relevant. We all live in a watershed. Abstract principles and processes - the water cycle, geomorphology, aquatic habitat, erosion, pollution - have a local application within our own watershed. If students can see those principles and processes in action around them, they will be more likely to understand them in the abstract.

Furthermore, they might even care. It's hard to get excited about flooding in the Ganges, when it is so far away and on such a large scale. But local watersheds are the property of local communities. Local decisions are important. If students understand their own local watershed, they may see that they can have an influence on what happens in their watershed, their home.

This idea of grassroots ownership is the premise of two excellent watershed-focused educational packages. The Watershed Report Card is a comprehensive program for community groups and schools to learn about and evaluate their local watershed. In the prairie provinces, an organization called Partners for the Saskatchewan River Basin have a similar program called Water Watchdogs, which provides information and activities about the Saskatchewan River watershed, including online activities and the ability to post results on the project's Web page. [See page 6.]

A number of other organizations and provincial agencies have water education programs with related information and activities that could enhance a watershed study. [See page 6.]

Watershed Properties and Processes (from Watershed Report Card, Bronze Level)

A watershed is a natural area of land, water and life that is linked together, and defined by the movements of surface and groundwater. Water which enters the watershed flows through it and generally leaves from the same point, usually the mouth of a stream or a river.

The land, or landscape, of a watershed is made up of soil and rocks and their arrangement into hills and valleys. Hills and other high points set the boundaries of the watershed, while the overall landscape affects the paths that the water takes. In turn, the movement of water through the watershed affects the land. The character of the soil and rock also influence the quality and the composition of the water, as well as the life that depends upon it.

Water moves through pathways and storage areas that are both above and below the surface of the land. Surface water moves overland until it enters a stream, wetland or river, and then moves at varying speed through other waterbodies to the mouth. Water also sinks into the ground in recharge areas, moves slowly through storage areas as groundwater, and comes to the surface again in springs or seeps known as discharge areas. As the water moves, both it and its pathways affect and are affected by land and life.

The life in a watershed gathers in communities containing both plants and animals. These communities have adapted to the kind of land, and the amount and distribution of water in the watershed. In turn, the plant communities in particular can influence the quality and flow of water and the amount of impact that water has on the land through erosion and flooding.

Finally, all people live, work and play within watersheds, and so are a part of them as well. These land uses reflect the values they hold for the watershed, and are affected by the interactions of land, water and life described above. Some of these uses benefit the watershed and some do not. By examining the effects that these land uses have on the balance and natural functions of the watershed, we can act to ensure the long-term health of our watersheds and ourselves.

LEARNING OUTCOMES

Students will:

a. Understand the importance of watersheds to the environment
b. Use a variety of maps to conduct research
c. Comprehend the connection of watersheds to the health of flora and fauna
d. Explore the impact of urban planning on the health of watersheds
e. Use research and communications tools like the Internet, CD-ROM, etc.
f. Use critical thinking to assess important issues relating to environmental health
g. Apply concepts in a real-world context
h. Work in teams to reach an objective

This teaching unit covers the following curriculum areas (based on pan-Canadian curriculum links): Science, Environmental Science, Outdoor Education, Geography, History, Language Arts, Visual Arts. Recommended for Grades 5-12.

BRAINSTORM

Goal: To develop an understanding of the concept of watershed in its broadest context and then apply the concept at the local level.

Using a large map of Canada or North America, identify major watersheds across the country. Start with large systems such as the Great Lakes - St. Lawrence Basin, MacKenzie River, Saskatchewan River, Fraser River, or other large watercourses in your region. Roughly sketch the boundaries of the major watersheds. What are the major features: rivers, lakes, cities, population, etc.? Students can do their own sketching at their desks on smaller photocopies of the map.

Point out how the North American land base is constructed of a network of major watersheds, draining in different directions. Include the United States in your discussion – watersheds don't follow political boundaries!

Now narrow the discussion to a regional level, and eventually to the local context. Using local base mapping or road maps, identify the smallest level of watershed that contains the school. How big is that watershed? Is it a fairly major river system, or does the school reside in a small subwatershed formed by a tributary creek or stream? Outline the boundaries of the school's watershed.

Point out how the idea of a watershed can be applied on just about any scale, from a small local creek to a system as huge as the Great Lakes - St. Lawrence Drainage Basin.

Depending on its size, the school's own watershed can be the focus of further class and individual investigation. If the school is in a very small local subwatershed, it may be wise to include one or two additional subwatersheds that feed into the same system, or to move up one level of system so that there is plenty of material for students to cover. But a massive system such as the Great Lakes Basin is probably too much to attempt.

Obtaining Maps and Resources
(adapted from Watershed Report Card, Bronze Level)

Topographic Maps
The best maps for studying watersheds, because they identify altitude and landform as well as watercourses and built features. Available from many Chambers of Commerce, college or university libraries, and government information centres. Ontario Base Mapping (1:50,000 scale, some 1:10,000 scale) is available from the Ontario Ministry of Natural Resources or the Ontario Ministry of Transportation.

Road Maps
General use maps which usually show watercourses, but not topography or other natural features. Good for locating rivers, streams, lakes, etc., and built features such as roads, towns, rail lines, etc. Available from gas stations and convenience stores.

Aerial Photos
Excellent resources for investigating habitat types and land use in a watershed. Can also be good for historical comparison, as there are usually new sets of photos taken every ten years or so. Generally available from municipal offices, conservation authorities, and provincial natural resource departments, as well as college and university libraries.
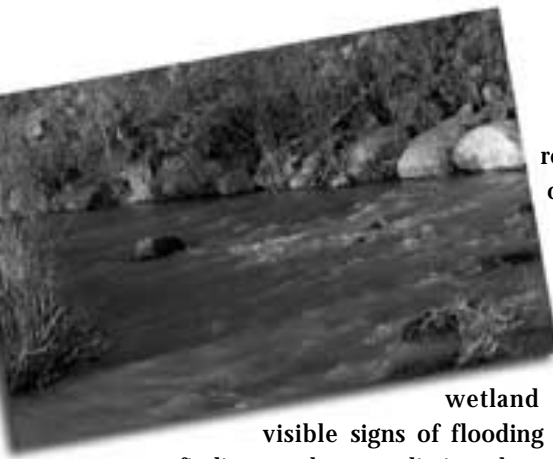
Official Plans
The overall planning document for a local municipality (some smaller communities may not have one, or may be included in a larger regional plan). Set out areas of different land uses within the municipality. May include background information, such as ecological inventories or studies, perhaps even a watershed or subwatershed study. Available from local municipal offices or planning departments.

Ecological Inventories/Studies
Describe and evaluate ecological features such as hydrology, vegetation, wildlife habitat, water quality, etc. May be available from municipal offices, conservation authorities, provincial natural resource departments, or environmental or naturalist organizations.

RESEARCH ACTIVITIES

Watershed Mapping
Goal: To create a map showing the watershed and identifying its important features.

Working alone or in a small group, students will create a large map showing watershed features. Research the characteristics of the watershed using topographic maps, road maps, aerial photographs, or a site visit. Identify the boundaries of the watershed and all watercourses within it including the mouth, or bottom, of the watershed. Locate major features, such as lakes, wetlands, major landforms, cities, towns, etc. As part of the map, include a chart of characteristics, such as watershed area, length of the main watercourse, human population, and any other information that might be useful or interesting to the class. Post the final map on the wall and make a presentation to the class about the important characteristics of the watershed.

Aquatic Habitat
Goal: To investigate aquatic life in the watershed and evaluate the health of the aquatic habitat.

Working as a class or a small group, students will prepare a chart showing aquatic habitat and aquatic life in the watershed. Using topographic or aerial maps or through a site visit, identify the different kinds of aquatic habitat within the watershed, such as wetland, lake, river, stream, pool, etc. Research the types of aquatic organisms you might expect to find in each of these habitat types, including mammals, birds, fish, reptiles, amphibians, and insects. Prepare a chart showing this information. Talk to local naturalist clubs, biologists, or conservation agencies, or visit the watercourse to determine what is actually there. Add this information to the chart. Do results match the expectations? What do the results suggest about habitat health? What factors in the watershed contribute to the results? Present your findings to the class.

Flooding and Erosion
Goal: To predict how land use and human intervention have affected water flows and flooding in the watershed.

(Teachers may wish to consult the article "Floods n' Dams" in Green Teacher Vol. 48 for a simple funnel model showing the effects of land use on watershed drainage. The model could be used as a demonstration for the whole class, or included as part of this activity. The model will also be available this fall through the Canadian Wildlife Federation's Project WILD Education program.)

Working in a small group, students will prepare a report on how the natural flow of water through the watershed has been affected by human activity. Research the factors that lead to changes in natural water flow in a watercourse. Local or provincial conservation agencies often have information on flooding and erosion issues. Visit the watercourse to look for situations that might lead to flooding or erosion. These could include vegetation

removal, storm run-off from residential developments, ditching or channelling of the watercourse, or removal of natural wetland areas. Are there visible signs of flooding or erosion? Based on your findings, make a prediction about possible problems with erosion or flooding in the watershed. Then talk to local authorities (municipal staff, conservation authority staff, area residents, etc.) to find out if your predictions are accurate. Are there factors you did not consider? Present your findings to the class.

Change Through Time

Goal: To investigate changes in a watershed over time.

Working individually or in a small group, students will prepare a report about changes in the watershed over the past hundred years. Contact local historical societies, museums, or the municipal government to find information about the area's past. Possible materials include historical maps, early aerial photography, or books on local history. The report should consider questions such as: How has the watershed changed over time? What types of people have lived in the watershed? How did they use the land? How did they use the watercourse? Has the path of the watercourse changed? Have there been any natural events (floods, storms, etc.) that might have changed the watershed? Describe major changes in the watershed and how you think these changes may have affected the health or condition of the watershed.

Watershed-based Planning

Goal: To investigate the concept of a "watershed approach" to land-use planning and compare it to traditional planning practices.

Increasingly, planning authorities are requiring comprehensive watershed or subwatershed studies as a prerequisite to development applications. These studies may involve several political jurisdictions, and cover topics from groundwater flow to songbird habitat. Working individually, the student will prepare a report on the concept of watershed planning and how it differs from traditional landuse planning practices. Contact the local or provincial planning authority (municipal planning department, provincial ministry of municipal affairs, etc.) to find out whether watershed planning has been adopted in your region. Some agencies may have documents explaining their approach. The report should address the following questions: What is meant by watershed planning? How does it compare to a traditional approach? What are its advantages? What are its problems? Has there been a watershed-based plan or study in your area? How has it worked?

CREATIVE ACTIVITIES
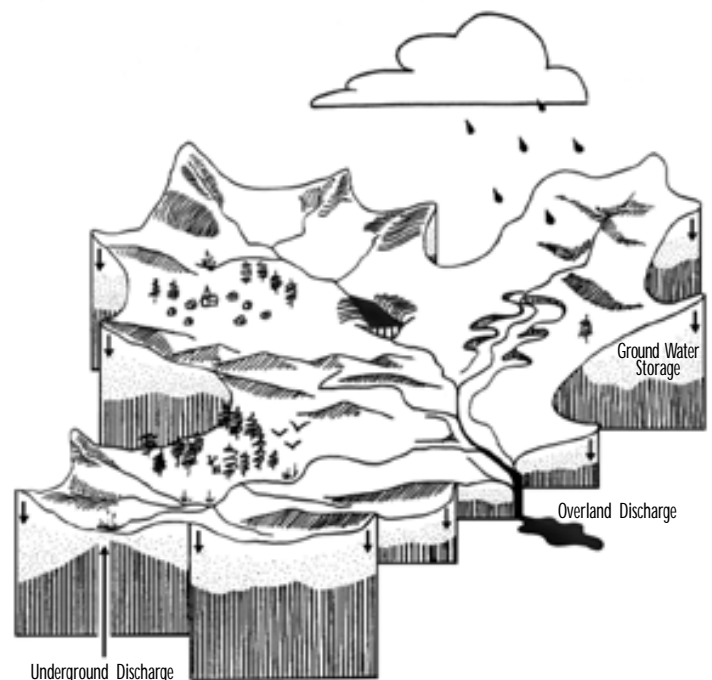
Watershed Tour

Goal: To illustrate the important and interesting aspects of the watershed.

Working individually or as a small group, students will create illustrated materials identifying and describing key points of interest in the watershed. The project could take the form of a poster advertisement, a tourist brochure, or an interpretive guide targeted at other watershed residents or tourists to the area. What interesting features might people like to know about and visit? Highlights could include natural features, historical sites, important buildings, natural or human hazards, etc. The final product should include an illustration of the watershed, with points of interest identified and described in a way that would make people want to visit.

Travelling the Watershed

Goal: To describe the watershed through creative writing.

Working individually, the student will write a story about travelling through the watershed from headwaters to mouth. The story could feature a person, an animal, a drop of water, or something like a stick or a little boat. Considering the major characteristics of the watershed and its watercourses, what does the character encounter on its journey? What problems does it have along the way? What does the character think of the health of the watershed as it passes through?

Watershed Vignettes

Goal: To portray how people have related to the watershed through a dramatic presentation.

Working in a small group, students will create a short play or series of vignettes portraying the human history of the watershed. Sources could include books on local history, a local museum, or interviews with local residents. Find out how people have related to the watercourse and the watershed over the years. The play could include anything from native myths to local seniors' reminiscences about playing around the watercourse. Present your play to the class.

FINAL PROJECT

Build a Watershed

Goal: To create a realistic model of the watershed including key natural and human features.

(Teachers may wish to refer to the article "Educating the Community: A Watershed Model", Green Teacher Vol. 66, Fall-Winter 2001, for a detailed description of how to build a watershed.)

Working as a class, decide on the size and scope of the model you wish to build. Then use topographic maps to establish the physical geography of the watershed. Determine a scale to fit the size of model you wish to construct. Transfer the topographic information to the base of the model, to be a template for building the model. You may wish to exaggerate the vertical dimension to make the model slightly more graphic. The model can be built using styrofoam, cement, plaster, plastercine, paper mache, or other materials. It should be built in - or be able to be moved to - a location where it is alright to pour water over it.

Make the model as accurate as possible, including the slope of the land, the path of the main watercourse and its tributaries, and any other major features such as lakes, dams, towns, land uses, and other features that the class has learned about during their study. Paint, or otherwise coat, the model so you can run water down it.

Try it out! With a hose or buckets of water, demonstrate how water from all over the watershed gathers in the watercourses and eventually flows to the mouth. You can try out different conditions - such as adding a spongy covering to simulate soil and vegetation cover to see how the flow differs from when there is no covering. Use the model as a means for sharing what the class has learned about the watershed, by making a presentation to the rest of the school, parents, or the local community. Above all, have fun with it.

RESOURCES

Books and Articles

Beck, Gregor Gilpin and Bruce Littlejohn, eds. *Voices for the Watershed: Environmental Issues in the Great Lakes – St. Lawrence Drainage Basin.* Montreal: McGill-Queen's University Press, 2000.

Dobson, Clive and Gregor Gilpin Beck. *Watersheds: A Practical Handbook for Healthy Water.* Federation of Ontario Naturalists, 2002.

Hammond, William F. "Tempting the Inner Beaver: A Working Stream Model." *Green Teacher 66* (2001): 10-12.

Milne, Andrew and John Etches. "Floods n' Dams." *Green Teacher 48* (1996): 13-16.

Perryess, C.S. "Educating the Community: A Watershed Model." *Green Teacher 66* (2001): 6-10.

Web Sites

Alberta Environment: ***www.gov.ab.ca/env/water.html***

Green Teacher: ***www.greenteacher.com***

Federation of Ontario Naturalists: ***www.ontarionature.org***

Festive Earth Society: ***www.festiveearth.com***

Project WET Canada: ***www.cwra.org/wet/educatframe1***

Water Watchdog: ***www.saskriverbasin.ca/WaterWatchdog/index.htm***

Watershed Report Card: ***www.watershedreportcard.org***

Wild BC: ***www.hctf.ca/wild.htm***

WILD Education: ***www.wildeducation.org***

*Jean Greig is a freelance writer with a masters degree in Enviromental Studies. She can be reacted at **jgreig@sympatico.ca***

Professional Development Delivered Right to Your Screen

- No software Required

By Aida Fahoum

Welcome to the Virtual Teacher Centre (VTC) - a Web site that offers access to a wealth of information directly related to, influenced by, and built for the professional needs of educators. The Newfoundland and Labrador Teachers Association (NLTA) launched the VTC in November of last year to serve the needs of educators in the province. Since its launch, the site has received significant praise. As it builds, assists, and delivers both Web-based professional development and curriculum support in a variety of formats that are accessible and user friendly, the VTC has become Canada's first epicenter of educator professional development.

The VTC intends to make PD accessible virtually anywhere. Professional development for teachers in Newfoundland and Labrador has faced challenges for a number of years largely to due to the province's vast geographical area. Many schools are located in rural or remote areas, making it difficult for educators to regularly travel to main locations and complete professional development courses and programs. The lack of substitute teachers has also complicated this process.

Although the Association's initiative was built on the delivery of education-related information via the Internet, the intention has never been, and will never be, to replace the personal delivery of PD. Alex Hickey, coordinator of the VTC, says, "We saw this as an opportunity, not to displace face-to-face PD, but to enhance and to provide some enrichment to the face-to-face experiences teachers are getting."

The site offers educators the opportunity to earn PD points for completed activities. "This province does not have a mechanism that recognizes teacher learning outside of the formalized institutions for accreditation. Rather than wait until there was some resolution to that dialogue, we decided to go ahead and award PD points," says Hickey. One PD point is based on one hour of study. PD points are tracked using the site's digital portfolio. At present, the activities available for PD credit include Quick Reads and Investigations.

Alex Hickey

Quick Reads give users an opportunity to engage in online learning activities on a particular topic of interest. Here, users simply browse through the provided reading, or may choose to write a 100-word summary for credit. Quick Reads cover topics ranging from Attention Deficit Disorder to Commercialism in Schools to Instructional Rubrics. Also connected to this feature are Web links that directly relate to the topic at hand. If a user wishes to engage in further study, the resources are available at the click of a button.

> *"The Virtual Teacher Centre provides teachers with an opportunity to connect with one another and to learn collaboratively."*

Investigations are considered "introductions," or "refreshers." Again, the range of topics available for study are vast, and include readings on such topics as Block Scheduling, Looping, and Current Issues in Education (such as Standardized Testing, Relevance of Research, and Mixed-Age Grouping). When taken for PD credit, Investigations presents users with readings on chosen topics and gives them the opportunity to further pursue topics, apply, and reflect on newly acquired knowledge. Registered users submit completed activities and PD points are automatically sent to the portfolio of that user.

Membership is free, and available to virtually anyone in the education community. The site features Tutorials, Mediated Study Groups, Web casts, Subject Centres, PD Web quests, and Electronic Seminars. Resources are endless and include links to Canadian resources, curriculum resources, newspapers, Canadian information resources, and government information services. Educators may also submit material, which is reviewed and posted for public viewing.

The VTC not only provides professional development activities, but also allows educators to interact with other educators, content, and technology, as well as allow bodies of knowledge to interact with other bodies of knowledge. Throughout its planning, the NLTA was concerned about how adults learn online. "We went looking for instructional learning models, and we were not

really able to nail down anything substantially different from the classroom model. A lot of people were bringing content over to the Web in text format and basically replicating the old university environment. We served to think differently about it, and to look at how the Web allows us to interact," says Hickey.

For both new teachers and pre-service teachers, the VTC offers a plethora of education-related information, classroom, and curriculum support, and access to a variety of invaluable resources that are not always readily available or easily accessible.

"The need to be able to support new teachers in dynamic ways is growing, and the VTC offers us a way to do that," says Wayne Hallett, president of the Special Interest Council of the NLTA. Referring to the diversity the VTC offers teachers, Hallett says, "The VTC provides teachers with an opportunity to connect with one another and to learn collaboratively."

The VTC also offers teachers the opportunity to interact with each other to discuss issues such as exceptionalities within the classroom. "The VTC offers teachers ways to connect and actually share with other teachers their practices, or to gather from other teachers the practices that will be beneficial in meeting the needs of exceptional children. It provides those teaching in a situation that they might consider to be unique the opportunity to connect easily with another teacher in a similar situation, share practices, and benefit from one another's knowledge," comments Hallett.

"It is timely, it is overdue, and it is very available," says Gerald Buffett, principal at Newfoundland's Fitzgerald Academy. "Both province-wide and internationally, the potential certainly is there."

The Fitzgerald Academy is presently conducting a pilot project with the K-6 program that looks specifically at skills and outcomes in the classroom with the use of technology. "When we obtain the results of that pilot, we will pass that information over to Alex so that it can be part of the VTC. Within the province, other teachers can look and see what we as one school are doing to address the outcomes of using technology with the children in those grade levels. If other individuals come out and share similar

initiatives - to look at, use, or constructively criticize - the VTC will be quite the knowledge bank to be used as a resource by teachers anywhere in the province or anywhere in the country," says Buffett.

Joe Lafitte teaches senior high level technological studies at Newfoundland's Crescent College. He states, "The VTC will be a catalyst for great things in PD in the province and as well will be a model that will be borrowed or exported over the world. It goes to show that even though a place may not be big, it can do big things. I believe that when the VTC gets fully up-and-running and as more teachers get online, it will be the catalyst for many undertakings in education."

The VTC works in partnership with Memorial University and the Department of Education for the development of online material. The VTC also frequently collaborates with 20 teacher-based special interest councils, including The Newfoundland and Labrador Educators of the Deaf, Educational Partnerships, and READ (Reading, English and Drama). The Association regularly runs plans by these councils and receives direction from them. In addition to the collaboration with the special interest councils, the NLTA works closely with the administrative program staff at school districts, as well as educators at schools across the province. "We want to discover what their mandates in PD are and see how we can blend and support each other - in essence, to uncover what their agenda is and to allow that to drive our content. We could quite easily develop a lot of content, but we are reluctant to do that because it is much more effective if it comes from the grassroots," says Hickey.

Although the site is predominantly in English, two special interest councils - the Modern Languages Council and the Consiel de Enseignant(e)s Francophones - address matters for French teachers. When completed, these components of the site will have significant French content. In addition, the VTC plans to meet with the Francophone school board next month to discuss how the VTC can address some of the PD needs of Francophone teachers. At present, the VTC lesson plan database

will accommodate lesson plans from French teachers, and French teachers will have the same opportunity as English teachers to contribute content to the site.

Although the NLTA's initiative is still in its infancy, with continued interest and support, the site is well on its way to being a cornerstone in PD delivery and will soon establish itself as a one-stop-shop for educators of all levels. The potential of a site such as this is infinite. As the teaching profession is inherently rooted in the spirit of sharing, it is imperative that the whole education community gathers to ensure a gradual and successful development of the NLTA online community.

So, what can educators do to help foster this site and ensure that it is built strongly from the ground up? Hickey responds, "The Web is probably the most democratic institution we have ever had. Because it is not governed by anyone, it really takes its direction from the people who use it, despite what the advertisers might want to think. Teachers have an opportunity to be the architects of their own professional growth. We believe that teachers in this province will come to that. I believe that eventually, most of the content on here will be either developed or directed by teachers - that is its strength, and that will be its power." ☞

*Aida Fahoum is a freelance writer and a gradute teacher who will begin teaching this fall. She can be reached at **aidfah@hotmail.com***

Musée d'Orsay Virtual Visit
By Rose Dotten

Produced by Montparnasse Multi-media and the Reunion des Musées Nationaux, Musée d'Orsay Virtual Visit is an interactive CD-ROM designed to provide a tour of the great Musée d'Orsay by moving room to room and exploring its works. The magnificent collection consists of masterpieces of art, paintings, sculptures, photographs, and other objets d'art grouped by artistic movements from the middle of the 19th century to the beginning of the 20th century. The great masters of the era (Monet, Gaugin, Van Gogh, Rodin, Klimt, Lalique) and the monumental movements (Symbolism, Art Nouveau, Impressionism) are all represented. The virtual tour incorporates commentaries on art history and allows users to zoom in on paintings and examine sculptures from different views. This complex and multi-faced tool is very rich in information, both textually and visually.

Included in this CD are:
- *200 works*
- *15 artistic movements*
- *12 introductions to the history of art*
- *45 animated sequences*
- *5 hours of sound commentary*
- *Comments by a guide*
- *A personalized album that allows the user to build collections, create slide presentations, and make notes*
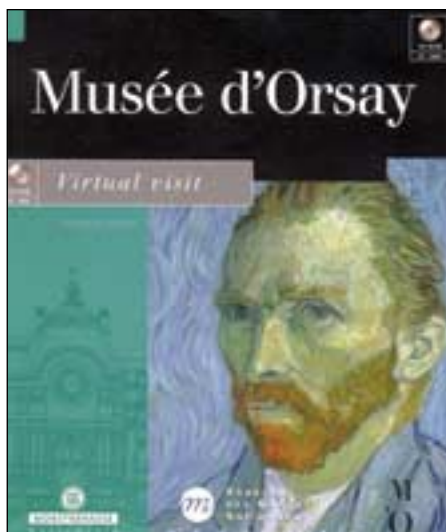
The key to navigating and utilizing this CD-ROM to its full potential is to explore and understand the functions of the "floating" toolbar on the bottom of the screen. As the first screen opens, note the general heading SUMMARY, through which you can go to VISITS. This area contains a map that allows you to move from room to room, zoom in on a work of art, and listen to a thematic narrative.

Accessing the COLLECTIONS screen displays a list of 15 artistic movements, which, when clicked on individually, display a representative work of that movement, a commentary, and the dates it encompasses. Further exploration allows you to access all the representative works of the movement selected and add your favourites to a personal ALBUM. The final component of this area is the WORK screen, which gives more specific information about the work chosen as well as biographical information about the artist. Included in the biography section is a glossary of definitions and terms.

And there is more…

The NARRATIVE summaries list all the narratives available and present the works in a general context according to themes. The chronology feature displays a neat interactive clock that allows its hands to be moved, displaying the time period, artist, and location of the work.

The ALBUM feature is one that is sure to be useful for students. It allows them to click on a work and drag it to a personal album, accessing the voice commentaries in text form and allowing additional research information to be added. In this way, students can add and delete information and make the research more meaningful. A feature that demonstrates the logical organization of the CD-ROM is the INDEX, which accesses a list of all the artists and their works in alphabetical order. Finally, the JOURNEY section accumulates eight works you have visited and accompanies them with a personalized commentary.

This CD-ROM has particular relevance to Ontario's Grade 11 Visual Arts Curriculum, under the strand "Theory – Art History and Culture" and "Analysis – Critical Process." There are many other areas in the history curriculum as well as the arts where this CD-ROM can provide excellent background information. It is also a fun way to develop a good understanding of the artists, movements, and historical perspectives of the famous la gare d'Orsay.

Rose Dotten is director of Library and Information Services at the University of Toronto Schools: Rose can be reached at rjd@uts.oise.utoronto.ca

Musée d'Orsay Virtual Visit is easy to load and navigate, and has the following system requirements:

Macintosh
680440 microprocessor
at 33MHz 5.2 MB RAM
System 7 or higher
Double speed CD-ROM player

PC or compatible
486 DX2-66 microprocessor
8 - 16 MB of RAM
Double speed CD-ROM player
16-bit Windows-compatible sound card
Win 3.1 or higher (preferable)

Order through the CDROMSTORE for CDN $69.99, or directly from Montparnasse multimedia:

CDROMSTORE
345 Danforth Avenue
Toronto, ON M4K 1N7
Tel: 416-778-4048 (Toronto)
1-800-250-9229 (Rest of Canada)
Fax: 416-778-4099
Email: *mkesten@cdromstore.com*
Web: *www.cdromstore.com*

Montparnasse multimedia
21, rue de Choiseul
75002 Paris - France
Tel: 33-1 40 07 87 87
Fax: 33-1 47 42 14 80
Email: *contact@itw.fr*

School honours the ideas of a great Canadian

By Jeremy Simon / *Editorial Sponsorship*

Herbert Marshall McLuhan was a visionary, Canadian educator, and author in the field of mass media. He coined the popular phrases "The medium is the message" and "global village" to illustrate the many insights he held about the mass media phenomenon. McLuhan died in 1980 at the age of 69, years before digitization would expand media beyond even his imagination.

Fast forward to the late 1990s, where a group of educators in Toronto envisioned a place where McLuhan's ground breaking ideas could be honoured, and applied. Their vision became Marshall McLuhan Catholic Secondary School, a mainstream high school in the Toronto District Catholic School Board that has become a "technology-enhanced" community. McLuhan Catholic Secondary teaches all aspects of a traditional liberal arts curriculum, but takes full advantage of contemporary communication and information technology in all subject areas.

> *"Students reflect on who they are and what their responsibilities are as human beings."*

One of the most important McLuhan-esque features of the school is its Media and Communications Lab. With 50 Macs and 25 PCs dedicated to teaching communications, this secondary school is better equipped than some colleges and universities. The teacher in charge of the lab is John D'Arcy, department head of Communications Technology and the Arts.

After three years in makeshift conditions, the spacious new lab opened in September 2001. The communications program instantly grew from one teacher to five, and the new facility had to be equipped. "I wanted to take a serious look at the Apple platform because it plays such an important role in art and media," said D'Arcy. The Toronto District Catholic School Board is not an Apple board, but D'Arcy and former Principal Mike Pautler stepped up to the plate believing Macs would be important to the student learning experience.

Their pitch to the school board resulted in 45 G3 iMacs and three Power Mac G4s, some with CD burners, all networked. For projects like the school Web site, yearbook, and newspaper, students of various grades use the equipment together.

One thing that makes McLuhan Catholic Secondary unique is every student must take a half-credit of Media and Communications in Grade 9, and another half credit in Grade 10. "This is a school decision," advises D'Arcy. "It's not mandated by the Province or the Board."

The decision focuses on McLuhan's ideas. In Grade 9, students learn about his philosophy of globalization and their place in a technological world by undertaking a collage, a desktop publishing project and an interactive media project. Says D'Arcy: "McLuhan wanted people to understand what it means to be plugged in; that it has significant social consequences both globally and personally. Students reflect on who they are and what their responsibilities are as human beings."

The themes continue in Grade 10, where students explore technology as it impacts on their personal lives, careers, and society. They design a Web site and make a movie using iMovie. "iMovie is so easy to work with that it never gets in the way of the creative process," adds D'Arcy, who was educated as an artist and loves the extended capabilities of technological tools.

After two years of planning, the school launched the inaugural McLuhan Multimedia Festival in 2001. Students from across the province submitted projects in seven different categories for judging by professionals. Apple helped with many aspects of the event. This year's festival will be held at the Ontario Science Centre, where it can grow larger.

Although Marshall McLuhan Catholic Secondary School is not officially specialized, it is developing a reputation as something special. The school has had a waiting list all year. But then, people are always attracted to vision and principle. Twenty-two years after his life ended, McLuhan would be pleased to know that his ideas are alive and well. ⊕

Jeremy Simon is a freelance writer based in Toronto
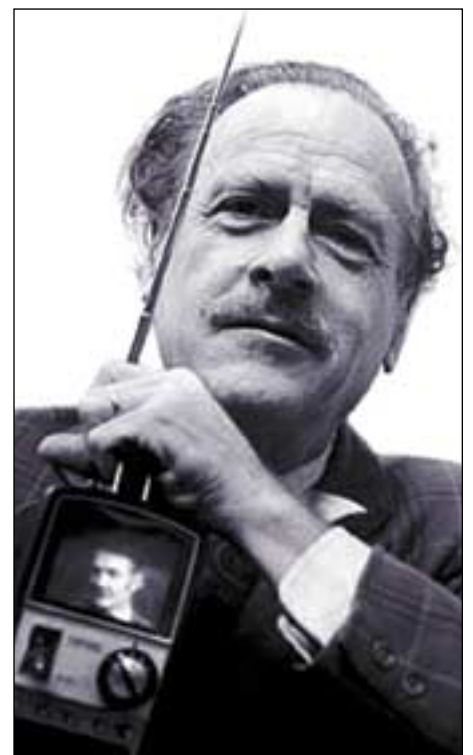
Finally, you can put that class clown to good use.

New cartoon ideas can hide anywhere, and we think there's one right in your classroom. That's why we've developed Creative Sparks 2002, a free, in-school program that helps you teach your grade 4–6 class the art and science of animation.

Language skills. Media literacy. The importance of teamwork. Along with additional in-class materials provided by Sandylion stickers. It's all in your Creative Sparks kit — a curriculum-based resource designed by education consultants.

After you take them through the kit, we invite your students to write, storyboard and submit a concept of their own to TELETOON. All entries are judged by a panel of industry experts and one winning entry will be produced as a cartoon to be aired on our network. **For free registration, call Creative Sparks toll-free at 1-888-884-8666. Or visit us on-line at teletoon.com for more information.**

CREATIVE SPARKS
School Program

SANDYLION
STICKER DESIGNS

teleTOON