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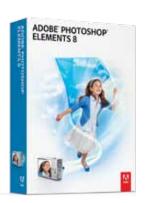
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NOTES

anadian Craig Kielburger is an international child rights activist. At the age of 11 he was compelled to take action against child labour and founded Free the Children, one of the world's leading youth-driven charities, inspiring a generation to stand up and have their voices heard. Today, Craig continues to spread his positive message internationally, to youth, teachers and parents. He provides them the ammunition to motivate today's young people to become active global citizens.

"I think the most powerful people in the world are not presidents and prime ministers, but they're educators," explains Craig as he sits down with our assistant editor, Lisa Tran to discuss his latest book, The World Needs Your Kid, co-written with brother Marc Kielburger and friend Shelley Page. Teachers and educators have the power to shift the perspective of a young person for the better. To achieve this we must show students how they can contribute to society, and more importantly, that they can do it today. Start by changing the way you teach, show them the three C's:

compassion, courage, and, community, a model encouraged in the book.

In Futures, Richard Worzel shares a similar sentiment: today's education system is in dire need of change. Schools are still using learning models that are outdated. If there has been extensive research explaining cognitive functions in young people and examples of different ways children's brains learn, why does the education system not reflect these learning patterns? Find out the ways in which he proposes we can help solve this dilemma.

In other content, we introduce you to two new Canadian interactive learning platforms, Genomic Digital Lab and Inanimate Alice. Both games are dynamic in their concept and reflect the new learning styles of today's technologically savvy youth.

Next Issue Annual Purchasing Guide Curricula **Futures** Webstuff and more.



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Follow the Red Brick Road

recent publication by my provincial government highlighted the marvelous things that individual teachers and school boards were doing with technology across the province. The report was both uplifting and disquieting. Uplifting because I could see that there were entrepreneurial, creative people working to bring the education system into the 21st century. Disquieting because these initiatives were disjointed, unrelated to each other, and were not attempting to change the average outcomes for the majority of students in the province. Indeed, the process of highlighting the projects underscored what could be done – but the report mainly demonstrated what is not being done to improve today's education.

There has recently been a steadily rising chorus of voices, especially outside of the pedagogical community, commenting on how much better we can improve today's education. These range from Sir Ken Robinson, a U.K. consultant, to Daniel T. Willingham, author of Why Don't Students Like School?, and science journalist Alanna Mitchell who wrote the 2009 Atkinson Series featured in The Toronto Star that surveyed education around the world. In part one of the Atkinson Series, Brains: the secret to better schools, Mitchell tells of French neuroscientist Bruno della Chiesa, who was cited as having asked the French education minister about an international movement to link research between cognitive function and education. The minister replied with his own question, "What does the brain have to do with education?"

I have always believed today's education system is modeled after the training of industrial workers in the 19th Century. You take 25 students and put them in the first grade workstation and process them through the first grade curriculum. Then you move them through the second grade workstation, process them through the second grade curriculum, and so on. Moreover, you have them sit and listen for six hours a day, five days a week, 180 days a year. The process is completely contrary to the natural inclination of children that results in boring students to tears before they get much past grade two or three.

This monotonous style of teaching is slowly changing, primarily in superficial ways. Further, we are not applying the extensive research on cognitive function, how the mind works, how different people learn with different strategies, how different people need different emotional and psychological needs to support optimal learning to the improvement and progression of education. We are, fundamentally, following an outdated model

that is an ineffective way of teaching children.

This is most troubling because our understanding of humans is growing with remarkable speed. We can look at brains as they function, tell whether someone is engaged or bored, identify strategies that are likely to produce superior results, and even begin to understand the relationships between genetics and environment that shape personalities, intellects, and brain function. But what we know now will pale in comparison to what we know by the time today's grade one students finish their formal schooling. Clearly, we want to

take advantage of the knowledge about human brain functions and use it to help learners to learn even better and develop better intellectual gifts.

So my question is: what needs to happen for schools boards to adopt superior methods of teaching students? Who can help us take advantage of our rapidly gathering understanding of brains and how they learn? The answer is, that there are a lot of factors holding us back.

I want to begin with teachers.

Teachers represent the front line in education. They make fine theories work in real world class-rooms. Therefore, they must lead this revolution,



"Teachers represent the front line in education. They make fine theories work in real world classrooms. Therefore, they must lead this revolution, much as doctors would have to lead a revolution in cancer treatment, not researchers. In order to succeed, teachers need to be up-to-date on the current developments in education. First, teachers must seek out such knowledge, particularly, case studies of real students in real classrooms and push to have them presented at conferences and PD days. Second, as a society we must make sure teachers have both the time and the resources to study new developments before asking them to implement them."



much as doctors would have to lead a revolution in cancer treatment, not researchers. In order to succeed, teachers need to be upto-date on the current developments in education. First, teachers must seek out such knowledge, particularly, case studies of real students in real classrooms and push to have them presented at conferences and PD days. Second, as a society we must make sure teachers have both the time and the resources to study new developments before asking them to implement them.

Next, are the principals and administrators. They need to be the fomenters of change by pushing ministries and school boards to source and present such information and ensuring that teachers have appropriate access to it. Principals and administrators are the facilitators of this process and working with teachers, must become the champions of the concepts that can realistically work in the classroom.

Then there are the school boards and ministries of education. It is their job to sift through the research, decide upon the approaches that look most promising, and make it available to schools. This requires appointing individuals to seek out the wide varieties of research that are emerging, consult with researchers to find out which ones have been tried in real world environments, and which show the most promise. It is vital that the approaches be realistic, and have been tried in ordinary schools, not mere showcase schools with massive resources. New approaches that have worked elsewhere must be introduced slowly, on a small scale.

Ministers of Education have two responsibilities. First, they need to take the political flak that always accompanies change, defuse it, and harness it into constructive dialogue so that schools do not become war zones between opposing views on high-minded pedagogical theories. Second, Ministers of Education must encourage change in the education system. Every social system resists change; stasis is easier, and people – all people – are inherently lazy. Therefore, for the good of your province or territory, and to secure its future, Ministers must ensure change happens by pressuring ministry bureau-

cracy, supporting their initiatives, and making in the system accountable for converting new ideas into practical classroom realities.

Parents represent the users of the education system. They must push for better education for their children and work with teachers to make it happen. Parents must welcome new initiatives, but also be unwilling to accept 19th century answers in a 21st century world. If children are bored and hate school, there might be something radically wrong with their school. Parents must then find the alternatives and start conversations about how schools can improve.

Last, there are voters. Change takes time, but it has to start somewhere. Voters should not block change with knee-jerk reactions of "schools were tougher in my day." Before, people did not understand 10% about how the brain works, or how students learn. Voters pay

a hefty tax bill to educate students. They must ensure that the education system is providing value for every tax dollar spent.

Our education system needs to be changed, but cautiously, and in the right directions. This requires sustained, careful effort, and what some might think is hopeless cooperation between the different participants in the education system. I believe we have no choice; the old models do not work with today's hipper, sharper, Internet-savvy children. If we do not change the system, today's students will increasingly tune out the system as irrelevant and we will lose an enormous opportunity that will benefit all of us.

Richard Worzel is Canada's leading futurist, and one of the most soughtafter professional speakers in the country. He offers to speak to high school students for free, as his schedule allows. Contact him through TEACH Magazine, or by email at futurist@futuresearch.com.

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PRODUCT SUPPLEMENT NOV-DEC 2009



























Welcome to TEACH Magazine's Product Supplement. In this edition we are featuring some of the latest technologies that have just hit the market and may be the perfect addition to your classroom. From computer software that will make any creative project come alive or the newest equipment for your science lessons – the Product Supplement has it. Please note that our descriptions are informative and not endorsements or reviews. We hope you enjoy our selections and be sure to ask for educational discounts and

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pricing when ordering your products.

speckFINDER HD Digital **Computer Microscope** http://www.speckfinder.com/



The speck-FINDER HD is a digital computing microscope that offers high magnification quality. Additionally, its ergonomic design helps to reduce the stress placed upon the

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Adobe Photoshop Elements 8 is available for Windows and Mac operating systems. Windows XP with Service Pack 2 or 3, Windows Vista, Windows 7. Mac OS X v10.4.11-10.5.8 or v10.6.

Educational price for Mac or PC versions: \$69 USD

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Adobe Premiere Elements 8 is only available for Windows Operating Systems: Windows XP with Service Pack 2, Windows Media Center, Windows Vista, and Windows 7.

Educational price: Photoshop Elements 8 and Premiere Elements 8 for PC: \$119 USD

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MAGIX K-12 Academic Suite http://www.magix.com



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notable sites for teachers

Commonwealth of Learning

http://www.col.org/



The Commonwealth of Learning (COL) is an intergovernmental organization created by Commonwealth governments to encourage the development and sharing of open learning/dis-

tance education knowledge, resources and technologies. Their website contains an extensive collection of information and resources, many of which are free for use. Users can access information on some of the COL programs on education, livelihood and health, knowledge and management, virtual university, awards, and gender. As well, users access brochures on internship programs, and Commonwealth Executive MBA/MPA programs. Other COL resources include, publications, studies and reports, course materials, speeches and presentations, and information on programs and services. COL also has training resources, operational guides, consultant guides, radio programs, CD-ROMs, and videos.

Council of Ministers of Education Canada

http://www.cmec.ca/



The Council of Ministers of Education, Canada (CMEC) is an intergovernmental body founded in 1967 by ministers of education. They provide a forum to discuss policy issues, a

mechanism through which to undertake activities, projects, and initiatives in areas of mutual interest, a means by which to consult and cooperate with national education organizations and the federal government, and an instrument to represent the education interests of the provinces and territories internationally

CMEC provides leadership in education at the pan-Canadian and international levels and contributes to the fulfillment of the constitutional responsibility for education conferred on provinces and territories. In April 2008, CMEC released a new vision to address the education needs and aspirations of Canadians. Learn Canada 2020, a joint ministerial statement, underscores provincial and territorial responsibility for the four pillars of lifelong learning — early childhood learning and development, elementary and secondary schooling, post-secondary education, and adult learning and skills development. The initiative also proposes working collaboratively with key partners and stakeholders to ensure that all Canadians benefit from the strength and diversity of provincial and territorial education systems.

The CMEC website provides Canadians with access to many educational resources. There are publications covering over 40 different topic areas including, Aboriginal education, at-risk students, civic and citizenship education, literacy, skills learning, and teacher education and development.



Craig Kielburger founded Free the Children in 1995, when he was only eleven years old. Today, Free the Children is the world's largest network of children helping children through education with over one million young people involved in 45 countries. Along with his brother, Marc, and friend Shelley Page, Craig has written a new book, *The world needs your kid: how to raise children who care and contribute*. The world does in fact need your kid and in turn, they need you – someone to show and teach them they can make a difference.

I know the book is aimed at parents, but what is the value of it for teachers?

A lot of the stories in the book emphasize a call to action, which are very much directed at teachers because I think the most powerful people in the world are not presidents and prime ministers, but they're educators. If you shift the way a generation of young people look at the world, then you affect the way they live their lives. From the way they shop to the way they vote. If we could have teachers lead this shift it would be a very different lifestyle and a very informed one.

What type of education do you think is needed in schools to raise more awareness for global issues?

Instead of the 3 R's: reading, writing, and arithmetic, we created the book based on the 3 C's, compassion, courage, and community. I would love to see if schools would take that part of the fundamental aspect of education with them.

The first C is compassion. We need to raise young people who are compassionate. We need to consciously teach empathy in class-rooms. We need to create opportunities for students to care about others and to learn about each other's feelings. Beginning with the earliest ages of elementary school, teachers can help children to articulate feelings and help them to imagine what it's like to walk a mile in someone else's shoes. With the older grades, teachers can start with a map of the world and discuss current events, or take a newspaper and lay it down flat on a table and call students around to discuss what's happening in the world. Teachers can encourage their students to get involved in school-led volunteering and character education. With older students, they can be encouraged to take volunteer trips even ones overseas where they work in developing countries. In order to create these conscious types of op-

portunities for students, we need to nurture the compassion.

The second C is courage. We write a lot in the book about our own teachers. I write about my grade seven teacher who gave me the courage when I was holding a crumpled newspaper article in my hand about child labour, to stand in front of my class and give a speech that led to the founding of Free the Children. I look back at the moment and imagine if that conversation had gone a little bit differently. Imagine if he had looked at me and said," not today, Craig" or "we're behind on our standardized testing practices." Had I not had that opportunity, had he not realized that this is the purpose of education, well maybe Free the Children might not exist today.

The last C is community. We need to create a community beyond just parents to help young people as part of their journey. What's the purpose of education today in an age where young people can get all the facts and stats in a simple Google search? What's the role of a teacher today? I hope that it means challenging a student to see their role in the world and to be an active citizen in their community.

Do you have any sort of pedagogy or philosophy of education?

The philosophy that the world does in fact need your kid. Free the Children tries to make changing the world cool. We want to show young people that they're not alone. We try to give teachers ammunition, so to speak, when they talk to students about changing the world. They can point to some of the celebrities young people look up to. The same celebrities who are associated with events like We Day, like Jason Mraz, singing and talking about making a difference.

Also, when students volunteer, when they get involved in global issues, when they define themselves based on contributions to society, their grades do improve. These stu-

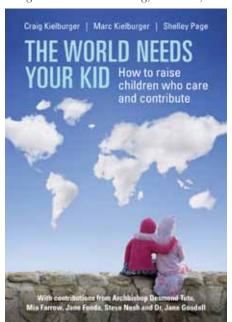
"I think
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people in the world are
not presidents and
prime ministers,
but they're educators."

dents are more likely to go on to post-secondary education, less likely to use or abuse drugs, and have better student-teacher relations. This is such a critical part of education that it's amazing there hasn't been more conversation especially in wider audiences and not just academic forums.

You write that this book is a result of the Dalai Lama saying the greatest challenge of today is that we are raising a generation of passive bystanders. You obviously agree.

Why do you think that is?

I think a lot of it has to do with how parents raise young people. Many parents have a gut reaction to protect their kid from anything bad: from suffering, violence, not



wanting to expose them to the negativity of the world. When they see something on the evening news and they deem it as inappropriate, they'll change the channel.

A lot of parents and teachers too, will say to young people "you'll be great leaders of tomorrow" or "someday when you're older you can make a difference." "You'll become a politician. You'll become a change maker." When young people hear these messages, they inadvertently also hear that they don't have to look at the problems of the world today. Parents and teachers can't shelter students from all the negativity in the world. You can't tell young people to close their eyes to this. When you avert their eyes, when you tell them they're too young to make a difference, when you tell them to wait until they become change makers, you're telling them to close their hearts to it.

When you look at the classic definition of a passive bystander, it's a person who assumes someone else will intervene, assumes the government or an organization or someone else will take care of it, and assumes that they're only one person. When young people are indirectly taught by parents and teachers that they'll be great leaders of tomorrow or that they're still young, they define who they are today by music and peer groups, homework, or marks in school, not by the contribution they can make in society today. I think it's a disservice to young people. Not only by discouraging them to become active citizens, but also preventing them from finding their own identity and self worth as something more than just the music they listen to or the peer group they belong to, but as the contribution they make to society.

In your opinion, has technology been an enabler or hindrance in encouraging students to become actively involved in good works?

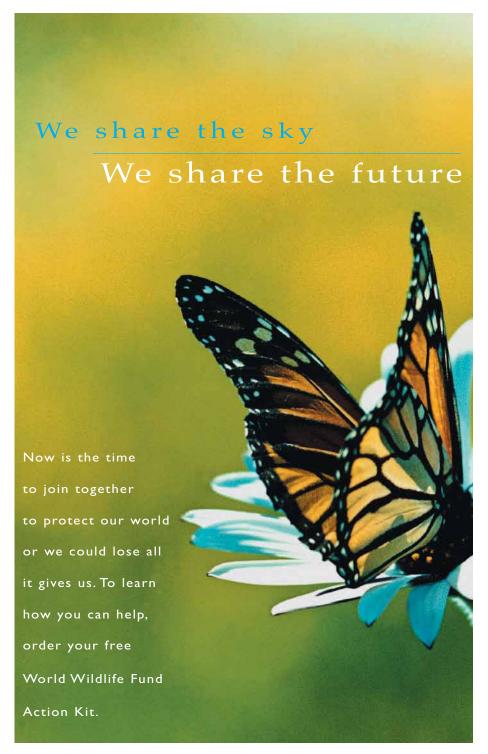
Massive enabler. For the first time we have kids with access to incredible amounts of information from around the world at the touch of their finger tips. Young people are now able to go online and play video games with kids in different countries. For the first time we have this whole new level of globalization taking place. It's a different perspective of what it means to live in a global community. As a kid you grow up playing video games with a kid in China and you're eight or nine years old. At the same time, you have this generation that is now more informed and more empowered with technology, but also more frustrated. Because suddenly for the first time, you have elementary and middle school kids aware of all the issues, but not knowing how to help.

You're young and certainly a role model. You're almost in this "teacherly" position. Do you have advice for young teachers?

The only advice that I can truly share is to fully appreciate that they really are the most powerfully people in the world. In our society sadly, we don't recognize that enough. We don't pay teachers the amount that they deserve, considering the important role they play in society. Our media doesn't glorify teachers in the way it should, like movie stars or sports celebrities. The most powerful people in the world are teachers in that they can change the way young people look at the world. If you really want to leave a lasting legacy, to truly touch the future in a fundamental way, change the way one child looks at the future. To appreciate that they are heroes in society and although others may not recognize it, the students know that even if it takes years for them to appreciate it.

The tone of the book is very optimistic, how do you stay positive when met with criticism?

I'm very lucky. I get to see the change happening on a daily basis. In less than a week I have the pleasure to stand in a stadium with 60,000 kids at We Day Vancouver, who have all come together with the commitment to create a better and country and world. When you stand in that room, the most cynical person becomes an idealist and those who are idealistic become shamelessly idealistic.



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Playing the Biology

In the words of Bill Nve, "Science Rules" and it certainly does with the arrival of Canadian based, Genomics Digital Lab (GDL), an interactive online game that teaches students about core cell biology. Bill Nye's TV program is still remembered today because it delivered many scientific theories and concepts in a memorable and fun format. The days of Bill Nye the Science Guy are long gone, but the need for a fun and educational science teaching platform still exists especially because "adolescent students often complain that they cannot see the relationship between school participation and real life," says Mark Oehlert in 2007, Director of the Defense Acquisition University's Game and Simulation Department.

With the evolution of computer graphic software and gaming technology, it is now



even easier to recreate and simulate many scientific theories and models. But it seems that little of that technology has been vested in innovative educational games. There are many games on the market today selling under the guise of "educational", but all they contain are games followed by rounds of multiple choice quizzes.



GDL is unlike any of these so called educational games. It truly bridges the gap between gaming and learning. When you teach biology, you tell a story. GDL is a series of games built around the story of energy – how plants harness it from the sun, how cells use that energy, and how humans use that energy from plants for food and fuel. It has received many acclamations including the United Nations Summit Award in the escience and technology category. GDL contains 8 different types of unique games that can be played in either French or English.

Biology is often a difficult subject to grasp

because it is very much a three-dimensional concept conveyed two-dimensionally in a textbook. Images transcend language. GDL uses graphics and animations to help break the barriers around abstract concepts such as photosynthesis, DNA transcription, and creating proteins.

GDL uses an immersive, discovery-based approach. Users get to "play the biology" and manipulate the conditions surrounding a dying plant, for example. They get a real sense of what will happen in the cells using their critical thinking skills and creativity instead of merely reciting a chart from a textbook. GDL allows students to view, examine, manipulate, and experience some of the natural biological processes that occur in real life, everyday; processes that they otherwise would not be able to witness on their own or from a textbook.

The games were developed for grade 7 to 12 biology students and are based on a trial and error basis. They grow progressively difficult with each level, just like a video game. In order to win the game, players needs to learn, and to learn they need information obtained from playing the game.

For teachers and educators, GDL is an effective accompaniment to the classroom. Teachers can assess a student's progress as it is recorded in real time online. A student's performance, the length of time they spend on each game, and the notes they make in their online notebook can be viewed.

For students, the star attraction of GDL will certainly be the Guitar Hero-like game for DNA transcription. Not only does this game work with an actual Guitar Hero guitar with USB plug-in, but with one's own music too. For today's video game generation, the creators of GDL have made every effort to make biology relevant again. Science rules.



COMPUTERS

ClueFinders Search and Solve Adventures

http://www.learningvillage.com/html/rcfsearchandsolve.html http://www.educationmax.com/product.php?productid=25297&cat=2343

he ClueFinders are four young hip detectives who travel the world solving mysteries. Students can follow Joni, Owen, Santiago and Leslie as they tackle challenging puzzles and problems while building their self-esteem and confidence.

In Search & Solve Adventures, the ClueFinders embark on a mystery-solving romp through a haunted, abandoned amusement park. As you enter the amusement park, two of the Cluefinders are suddenly kidnapped and players must turn the park's electrical power generator back on to find them.

To start the power generator players must search out four "keys." Keys are earned by playing arcade games that uses critical thinking skills.

The program has a total of nine different activities found in the three stages of the mystery and each activity has four difficulty levels.

Cluefinders Search and Solve Adventures is for students who enjoy a good mystery. The game benefits those who are already logically inclined as well as those looking to develop their logical deductive capabilities. Students will be motivated to complete the activities because they will be eager to solve the mystery of the game.

The game is noteworthy because its mystery is engaging, combining storytelling with problem-solving activities. The individual activities are appropriately challenging. They require students to use logical thinking skills as well as language and math skills.

Publisher: The Learning Company and Mackiev

Learning Areas:

Exercises visual pattern recognition, number sequencing, vocabulary skills (specifically identifying synonyms) and a variety of logical (deductive reasoning) skills.

Age Range: 9-14

Grades: 4 through 7

Purchasing information: Amazon.ca http://www.amazon. ca/s/ref=nb_ss?url=search-alias%3Dsoftware&field-keyw ords=cluefinders+search+and+solve&x=0&y=0

System Requirements

Windows® Platform: Windows® 95/98/Me/2000/XP Macintosh® Operating System: Mac OS 8.6-9x

Special Features Include:

15 Interactive Activities 15+ Skills Covered Skill Levels Detailed Help Progress Reports

Master critical skills including:

Pattern Recognition
Pattern Completion
Classification
Order and Sequence
Cause and Effect
Planning and Strategy
Hypothesis Testing
Spatial Relationships
Deductive Reasoning
Logical Analysis
Problem Solving
Data Collection
Draw Conclusions
Make Analogies

*ClueFinders Search & Solve Adventures was previously sold as ClueFinders The Phantom Amusement Park.



FIELD TRIPS: what's on

elcome to Field Trips: What's On, where we share with you ways to take learning outside the classroom. In every issue, we promote ideas for possible field trips centred around one classroom subject. You can plan your next field trip based on our suggestions or use them as a basis for similar adventures. The places chosen however, are not personally reviewed or endorsed by TEACH Magazine, they represent options for your class field trips.

This issue's feature subject is Astronomy. Students will experience an "out of this world" adventure while visiting places dedicated to the study of the universe. Students can look through some of the world's most powerful telescopes, examine the Solar System, or go beyond our own galaxy on a guided field trip to places like a planetarium or the astronomy department of a science and technology institute.

FIELD TRIPS:

Montreal Planetarium – Montreal, Quebec

The Montreal Planetarium exposes the general public to the natural sciences and nature for the purpose of teaching people about astronomy, in particular. It helps to make people aware of the importance of protecting our natural heritage and of the relationships between humans and the environment.

Some of the programs:

Draco the Celestial Dragon (Preschool and Elementary Cycle One)

While playing with his friend, the Great Bear, Draco, the celestial dragon, realizes that he has lost his treasure! When he can't find it, Queen Cassiopeia suggests they ask the young audience members to help. They head off on a whirlwind tour of the major constellations, all the way to the skies of the Southern Hemisphere. Will Draco find what he's looking for?

Program length: 45 minutes Availability: September 8, 2009 until the end of the school year Times: 10:00am and 11:15am (Tuesday to Friday)

Telescope: Passport to the Stars (Elementary Cycle 3 and Secondary)

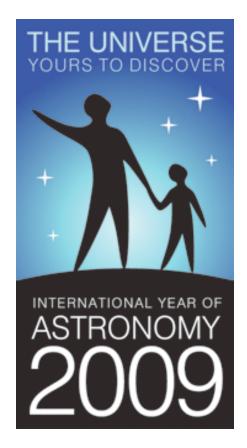
Since Galileo first used a telescope in 1609, these instruments have revealed incredible discoveries, allowing us to explore the Universe, our neighbouring planets and the most distant galaxies. Telescope: Passport to the Stars is a celebration of the beauties of the Universe and of human ingenuity, and a wonderful way to celebrate the International Year of Astronomy.

Program length: 45 minutes Availability: September 8, 2009 to December 18, 2009 and January 28, 2010 to May 7, 2010 Times: show times will vary during the year 10am and 11:15am (Tuesday to Friday), 2:30pm (Tuesday to Friday)

ALMA: In Search of Our Cosmic Origins (Secondary 1 to 5)

The Atacama Large Millimeter Array, being built at an altitude of 5,000 metres in northern Chile, will be the world's most powerful radio-telescope. This revolutionary instrument, with major contributions by astronomers from Quebec and elsewhere in Canada, promises to open a new window on our cosmic origins. Travel to the edge of the Universe!

Program length: 45 minutes



Availability: starting January 28, 2010 Times: 10am and 11:15am (Tuesday to Friday)

Cost (Group rates): Children (0-17): \$3.50 Students (18 +) and Seniors: \$5.00 Adults: \$6.75 Group rates are applicable to groups of 15 or more.

A reservation is required to benefit from the group rates.

One adult admitted free for every 21 paid admissions.

For more information, please contact: Planétarium de Montréal 1000, rue Saint-Jacques Montréal, Québec H3C 1G7 Telephone: (514) 872-4530

E-mail: info@planetarium.montreal.qc.ca Website: http://www.planetarium.

montreal.qc.ca/

NRC Herzberg Institute of Astrophysics, Centre of the Universe – Victoria, B.C.

The Centre of the Universe is located at the Dominion Astrophysical Observatory on top of Observatory Hill with an astronomy interpretive centre that allows visitors to become acquainted with research at the parent institution, the NRC Herzberg Institute of Astrophysics.

All programs can be delivered in either English or French.

Some of the programs:

Can We Live on Mars? Multimedia Show (Grade 2)

The Sky Tonight Planetarium Show and Plaskett Telescope Tour

Curriculum Link: The connection between air, water, soil and living things as applied to the possibility of living on Mars

Total: 90 mins, \$120+GST per class

Astronomy of Ancient Civilizations Multimedia Show (Grade 7)

The Ancient Sky Planetarium Show and Plaskett Telescope Tour

Curriculum Link: The effect of celestial phenomena on ancient civilizations

Total: 90 mins, \$120+GST per class

The Science of Black Holes Multimedia Show (Grade 12) The Sky Tonight Planetarium Show and Plaskett Telescope Tour

Curriculum Link: Gravitational attraction between masses and circular motion in the universe

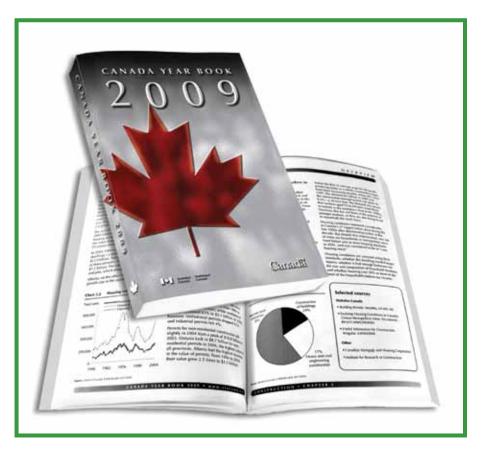
Total: 90 mins, \$120+GST per class

For more information or to make reservations for your school, contact:

NRC Centre of the Universe 5071 West Saanich Road Victoria, British Columbia V9E 2E7

Telephone: (250) 363-8262 E-mail: cu@nrc-cnrc.gc.ca

Website: http://www.nrc-cnrc.gc.ca/cu-cu/index.html





WWI - 1914-1918
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Curriculum Links Evaluation and Assessment Rubric

Available at:

www.teachmag.com/mint.html

Activities

junior (grades 4-6), intermediate (grades 7-9), and senior (grades 10-12)

CURRICULA

REPRODUCIBLE INSERT

Roll A Coin Through the Curriculum

Unit 3: The War Years

Introduction

When we refer to the War years, it means the periods of 1914-1918 and 1939-1945. During the First World War, Canada became involved as part of the British Empire and managed to prove itself in a bloody conflict. In particular, the Canadians took the lead and prevailed in the Battle of Vimy Ridge, which in many ways, marked a turning point in the country's evolution on the global stage. The Canadians accomplished something its allies couldn't. In 1939, Canada declared war on another country for the first and only time in its history. Like the First World War, this second global conflict changed Canada and its people dramatically and irrevocably. War presents new and difficult challenges for nations and Canada was no exception. In the Second World War, Canadians were called upon to learn new skills, develop new strategies, to rely more on themselves and each other than ever before. Where the First World War marked Canada's debut on the world stage, the Second World War accelerated the country's industrial capacity, its spirit and independence... all at a terrible price.

General Outcomes/Expectations

Students will:

- Understand the impact of global war domestically and internationally
- Research the conditions and events that led to the first two world wars
- Gain insight into the economics of war
- Attempt to understand war through culture, specifically, visual arts and poetry
- Explore key issues such as conscription and what effect it had on the psyche of the country
- Work together cooperatively in teams
- Hone critical assessment and evaluation skills

Key Concepts and Issues

Students will explore why and how Canada was affected by its involvement in two world conflicts and what influence these events had on the evolution of the country.

This resource was produced for the Royal Canadian Mint by TEACH Magazine, for more information about this educational program please visit www.teachmag.com or email us at info@teachmag.com

Junior Level Activity

The War Years: Painting the Conflict

Duration

Three to four class periods

Equipment Required

art supplies, pens, paper, markers, pencils, computers with Internet access

Key Concepts

Students will:

- Research the history of Canadian art and war
- Research the artists who were sent overseas to document the war years
- Understand the role art plays in documenting wars
- Create a poster or visual display on a war-related theme or event
- Use critical thinking and analytical skills
- Apply knowledge to current events
- Work cooperatively in teams

Resources

www.canadianencyclopedia.ca/index.cfm?PgNm=TCE&Params=A1ARTA0008436 www.vac-acc.gc.ca/remembers/sub.cfm?source=collections/paintings www.collectionscanada.ca/war-artists/index-e.html

Intro

Canada's War Art program officially began in 1916 by Lord Beaverbrook (Max Aitken). Artists in Canada and from around the world were commissioned to document the ongoing European conflict we know as the First World War. Some 800 works of art were produced as a result depicting civilians and the military, the battlefronts and conditions at home. The works of art that were produced, often under dangerous and difficult conditions, represent a valuable and all too human archive of the conditions surrounding warfare. The artists brought their own creativity and interpretation to the images they saw before them. As a result, an invaluable and poignant legacy was created and is available to those of us who have not experienced war firsthand. None of the commissioned works were exhibited while the First World War was ongoing but received public display after the War's end. Canada was also the first country to establish a war art program.

Discuss

Have a general discussion about art and its role as a vehicle for documenting events. War artists have played an important role during earlier conflicts from history such as the American Civil War. So, the role of the war artist had already been well established.

Research

Students will research the history of Canadian War art.

Write

Students will summarize their research findings. Maximum length: one page



The Home Front Poster
© Teach Magazine

Select

Students will select a war artist from the list above (see Resources).

Students will summarize the life and career of the war artist they have selected. Maximum length, one page.

Background

The Canadian War Museum (please see Web address in the Resources section) has divided up its exhibition on Canadian war art into different themes. The theme are as follows: Battle (images of conflict), Service (preparation and waiting for war), Work (those who aren't on the front lines but contributing to the war effort), Captivity/Casualties (those captured during ongoing battles and those wounded or killed, and Home/Leisure (what people on the home front were doing and taking time off from war).

Select

Students will select one of the above mentioned themes.

Design

Students will draw, paint, design, sketch their own visual image (painting, drawing, poster, cartoon etc.) based on the theme they have selected.

Write

Students will write a short narrative piece no more than two paragraphs in length describing their visual image, what it represents and its significance.

Present

Students will briefly present their images to the class.

Extension Activity

Form

Students will be placed in groups of three or four.

Discuss

The members of the group will discuss the visual image they have created with the other members. How do each of the images fit together? Can they tell a story?

Create

Using the images students have created, they will be pooled together to form a collage.

Write

Students will write some accompanying text describing their collage, its meaning and significance. Maximum length: page. Check the 1/2, it comes out as a symbol on the PDF.

Present

Each team will present its collage to the class and discuss its meaning and significance.

Intermediate Level Activity The War Years: Symbols of War

Duration

Two to three class periods

Equipment Required

art supplies, paper, pens, markers, pencils, computers with Internet access

Key Concepts

Students will:

- Understand the sacrifice men, women and children make in war time
- Gain appreciation for Canada's role in major conflicts overseas
- Learn about Canadian war medals, their meaning and significance
- Learn about national symbols and their importance
- Design their own version of a war medal
- Explore the significance of national symbols
- Work cooperatively in teams
- Hone critical thinking and analytical skills

Resources

www.airmuseum.ca/web/ammq9911.html
www.quebecoislibre.org/010707-12.htm
www.histori.ca/peace/page.do?pageID=337
www.pch.gc.ca/progs/cpsc-ccsp/sc-cs/index_e.cfm
http://fraser.cc/FlagsCan/Nation/NatSym.html

Intro

There is a lot about war and the events surrounding war that are symbolic. In the evolution of any country or society, symbols play an important role. They act as a standard of meaning, an image that is representative of that country. And the symbol communicates a message. During periods of war and peace, a country's armies employs objects that act as symbols. There are flags and heralds and standards, even different sorts of arms boast symbols, the configuration of the handle of a sword or a design etched into the blade of a knife. The patches and medals worn by military personnel, even their uniforms represent rank and actions undertaken. That is, did they complete a certain course or program, commit a heroic act or deed, fulfill obligations and responsibilities to attain a certain rank and so on. Wherever we look in society, we see the world filled with symbols even if it is an icon on a computer or a text message. Within the realm of the military, however, and the theatre of war, symbolism is ever present and pervasive.

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Tombac, nickle, 1943

Discuss

Have a general discussion about symbols in our society. What are their purpose? What do they mean? Have students list as many symbols as they can think of and write them on the board. What about national symbols (flag, maple leaf, beaver etc.)? Can students list any of Canada's national symbols and if so, do they understand their significance?

Research

Students will use the resources list above and research Canada's national symbols. They will select two symbols.



The Defence of Britain medal Source: Veteran Affairs Canada



The War Medal, 1939-45 Source: Veteran Affairs Canada

Write

Using the research conducted on the two Canadian symbols, students will write a short summary of each describing the symbol and its significance. Maximum length: ½ page.

Draw

Students will select one of the symbols they have researched and draw it. The drawing must be in context, however. This means that the symbol shouldn't appear on its own but connected to something. For example, the maple leaf is a symbol and it should be drawn as it could appear on a flag, a plaque, a uniform etc.

Research

Using the resources listed above, students will research Canada's military medals and decorations.

Select

Students will select two of the military medals and decorations.

Write

Based on the research they have done, students will write a short summary of the two military medals or decorations they have selected stating the history and significance of each. Maximum length: half page.





Top: 2004 Silver Poppy Quarter Bottom: 2005 Circulation Poppy Quarter

Extension Activity

1. In 1949, The Royal Canadian Mint struck two war medals, the Defence of Britain medal and the War Medal, 1939-45. The class will be divided up into teams of two or three students. Each team will research these medals and produce a short summary description of their history and significance, no longer than one page in length. The teams will then set about using all of the research they have done to date and design their own war medal. The medal may commemorate any conflict such as The First or Second World War, the Korean War, The Vietnam War or even a conflict currently afflicting the globe. Included with the concepts must be a brief explanation of the medal's significance. Students may also create a PowerPoint presentation displaying their research and medal concepts. The medal design will then be presented to the rest of the class.

Or:

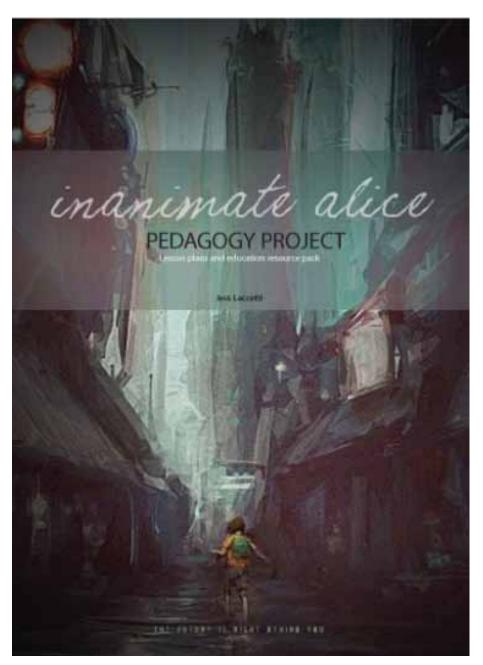
2. Students, working in teams will read In Flanders Fields, a poem by Colonel John McCrae, a Canadian military surgeon who served during the First World War. It is one of the most famous war poems ever written. Based on how they perceive the poem, each student team will design a commemorative medal or coin that represents John McCrae's poem. Accompanying the design will be a narrative description of the coin or medallion talking about its meaning and significance. The designs will be presented to the rest of the class.

In Flanders Fields

By Colonel John McCrae

In Flanders fields the poppies blow
Between the crosses, row on row
That mark our place; and in the sky
The larks, still bravely singing, fly
Scarce heard amid the guns below.
We are the Dead. Short days ago
We lived, felt dawn, saw sunset glow,
Loved and were loved, and now we lie
In Flanders fields.
Take up our quarrel with the foe;
To you from failing hands we throw
The torch; be yours to hold it high.
If ye break faith with us who die
We shall not sleep, though poppies grow
In Flanders fields.





How to read, today

The kids in our classrooms today are digital natives, born into a technological and digitally driven society learning to read from a video game or computer screen. These new types of readers may struggle with reading literature in the traditional book form.

How can the rich literature found in the pages of plain books compete with the interactive, flashy features of video games or an e-book? When it comes to the classroom the answer is clear, group discussions about

novels and plays cannot compete with the interactive qualities of the newest technologies aimed specifically for students who desire an alternative way of reading and learning

How can we encourage a digital native to read literature today? Perhaps the answer lies in a compelling new interactive digital initiative that is chock full of flashy features, but is primarily a graphic novel with strong narrative elements and comprehensive aids for teachers to follow: Inanimate Alice.

It is hard to describe the Inanimate Alice concept without seeing it. Inanimate Alice

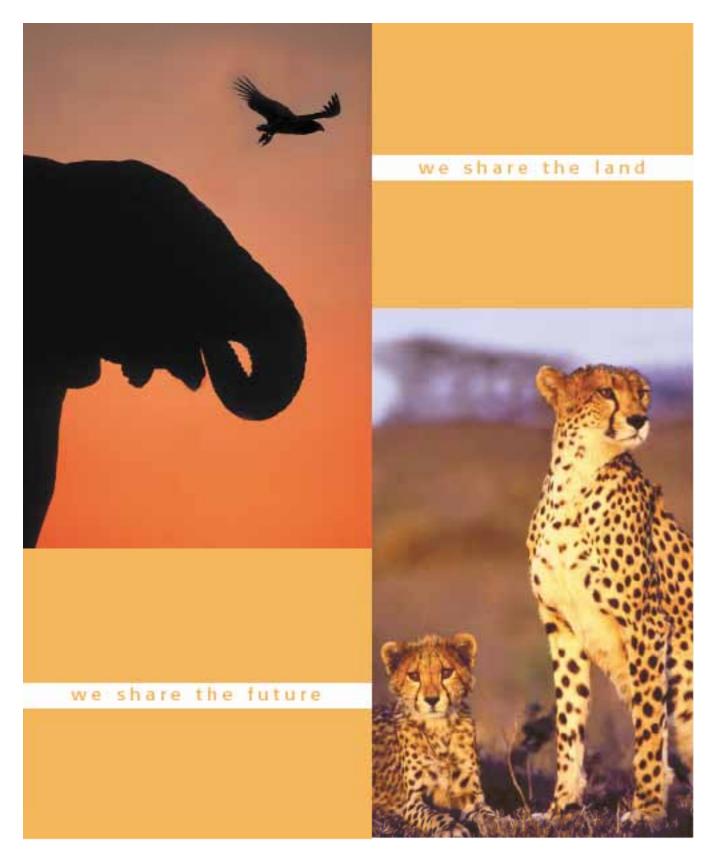
is a novel meets video game meets movie, almost. It mixes manipulated graphics, text, original music, and sound effects. Inanimate Alice tells the story of Alice, a young girl growing up in the first half of the 21st century and her imaginary digital friend, Brad. Over ten episodes, each a self-contained story, Alice grows from an eight-year old living with her parents in a remote region of Northern China to a talented midtwenties animator and designer working for the biggest games company in the world.

Inanimate Alice reads like a novel, but reels in your attention in a way only a video game or movie can. It is a matrix of blossoming themes and intriguing storylines. By stages, every theme, every element becomes more intense, sophisticated, and grown-up. From scratchy typefaces, simple dialogue, and rudimentary gadgets it feels real, edgy, and very relatable.

The series has an inherent energy and as such, engages students. Its concept calls out for interaction. At certain points in the narrative, the reader searches for ways to continue on the story by playing the builtin game. And you want to continue reading because the story is so captivating. What's Alice's secret? Why does she keep moving across the globe? What is going to happen next?

Inanimate Alice is a high quality literary experience told in a new form. It opens up the wonder of story-telling to a wider range of students and learning styles. Inanimate Alice is perfect for those not generally inclined toward reading, whether they have actual barriers to reading text or because they are visual learners or otherwise not geared to learning by written text. Inanimate Alice is a new way for digital natives to enjoy reading today.

http://www.inanimatealice.com/education/index.html



Now is the time to join together to protect our world or we could lose all it gives us.

To learn how you can help, order your free World Wildlife Fund Action Kit.

800.CALL.WWF | www.worldwildlife.org/act

Tagether, we can be a force for nature.