

TEACH

LE PROF

NOVEMBER/DECEMBER 2016 \$3.85

EDUCATION FOR TODAY AND TOMORROW - L'EDUCATION - AUJOURD'HUI ET DEMAIN



SHARE

**MAKING SOCIAL MEDIA
WORK FOR YOU**

9

Stress

**COPING TECHNIQUES
AND HOW TO USE THEM**

23

CURRICULA

**SHATTERED GROUND:
THE NEED FOR WAR 16**

COLUMNS

**WEBSTUFF: CODING 7
FIELD TRIPS: VISUAL ARTS 27**

**CLASSROOM PERSPECTIVES:
LITTLE SCHOOL, BIG HEART 12**

TEACH

MAGAZINE

PUBLISHER / EDITOR
Wili Liberman

ASSOCIATE EDITOR
Lisa Tran

EDITORIAL ASSISTANT
Alexandria Saracino

CONTRIBUTORS
Martha Beach, Meagan Gillmore,
Lorraine Lapp

ART DIRECTION
Kat Bezner

DESIGN / PRODUCTION
Studio Productions

EDITORIAL ADVISORY BOARD
Bernice Slotnick
Teacher (retired)

John Myers
*Curriculum Instructor,
Ontario Institute for Studies in Education/
University of Toronto*

Rose Dotten
*Directory of Library and Information
Services, University of Toronto Schools
(Retired)*

www.teachmag.com

TEACH is published by 1454119 Ontario Ltd. Printed in Canada. All rights reserved. Subscriptions are available free of cost by writing our office, 1655 Dupont St., Suite 321, Toronto, ON M6P 3T1 E: info@teachmag.com T: (416) 537-2103 or sign up for our newsletter at teachmag.com. Unsolicited articles, photographs and artwork submitted are welcome but TEACH cannot accept responsibility for their return. Contents of this publication may be reproduced for teachers' use in individual classrooms without permission. Others may not reproduce contents in any way unless given express consent by TEACH. Although every precaution is taken to ensure accuracy, TEACH, or any of its affiliates, cannot assume responsibility for the content, errors or opinions expressed in the articles or advertisements and hereby disclaim any liability to any party for any damages whatsoever. Canadian publication mail sales product agreement No. 195855. ISSN No. 1198-7707.

It's hard to believe that another year is winding down.

The holidays are fast approaching as is a much-deserved break. But with all the hustle and bustle of the festive season, it's easy for us to become overwhelmed and stressed. "Relax, breathe" isn't really helpful advice when you've got a never-ending list of tasks. But maybe there *really* is a reason we're told to breathe in moments of panic. Our first **Feature Story** discusses the topic of stress and how it pertains to the classroom and learning. Often, we are so overrun by the physiological and emotional symptoms of stress e.g., stomach butterflies, that we don't use our cognitive ability to calm ourselves down. At the same time, stress isn't always a bad thing. Read this story to find out how stress can help you learn, as well as what methods teachers may use to reduce day-to-day stress.

Our second **Feature Story** takes a look at the very prevalent, and often pervasive use of social media. In fact, for many, including teachers and students, social media is life. So, how can we harness social media's power for the classroom without looking at cat memes all day? Some teachers post videos detailing math lessons on YouTube. Students learn about geography and social studies by connecting with students worldwide in real time. Other classes participate in "Mystery Skype" video calls. Two classes chat with each other, without knowing where the other class is. They ask each other questions to determine the other class's location. Check out this story and learn how to effectively introduce social media to students and how it can be adapted for lesson plans.

In **Classroom Perspectives**, educator Lorraine Lapp writes about an idea from one student and how it mushroomed into one of her school's most powerful and positive experiences. The *Spread the Net Student Challenge* is a friendly competition between Canadian schools to raise funds for bed nets for families in Africa to prevent malaria. The initial goal was to raise \$2500 in two months (approximately \$10 per student; 240 students in total). Not only did they raise over \$11,000, but they won the Challenge, surpassing other participating schools, and were featured on television! Read Lorraine's story to see how her young students rallied together and came up with creative, simple, yet successful fundraising activities that generated a lot of money for a worthy cause.

I'd like to take this opportunity to thank you for your enthusiastic response to our latest educational resource, **Shattered Ground** (theshatteredground.com). We've had several hundred sign ups and many Enigma contest entries (deadline December 15). Please continue to sign up and share information about this resource. TEACH believes in supporting teachers and develops these products with teachers in mind. **Shattered Ground** is and will always be free, so I encourage you to check it out, if you haven't already. It can be used to teach the First World War and Canadian History, providing students with a unique perspective.

Happy Holidays and see you in the New Year!

Lisa Tran, Associate Editor
@teachmag

The Shadowed Road

version 2.0

An improved multimedia experience
for mobile devices.

Try it FREE today!



TheShadowedRoad.com

The Shadowed Road

EXPLORE
themes of Human Rights, Democracy, Basic Education and Global Citizenship through an interactive graphic novel that examines contemporary Ethiopia.

The Shadowed Road is an interactive graphic novel and multimedia experience. Pedagogical themes of Human Rights, Democracy, Basic Education, and Global Citizenship are explored through the project a great Social Studies or Digital Literacy project. Imaginative illustrations and unique multimedia experiences make learning fun and intuitive for ESL and ELL students.



EARLY LEARNING ESSENTIALS



Supporting Early Childhood Education for Lifelong Success

During a critical time for development and learning in children's lives – their brains are almost fully formed before the time they're 5 – School Specialty Canada helps you nurture young children's total development with a full array of materials that create a complete and effective learning environment.



PRODUCTS FOR EARLY CHILDHOOD DEVELOPMENT

- Furniture
- Manipulatives & Games
- Arts & Crafts
- Infant & Toddler
- Special Education
- Teacher Essentials & much more!

With a full selection of early childhood educational products, School Specialty Canada can help create a complete and effective learning environment. We offer a complete assortment of high-quality, safe and developmentally appropriate products that support early learning standards and educational outcomes for children. Together, we can meet the needs of all children by building crucial "C" learning skills for the 21st Century: communication, creativity, critical thinking, collaboration and character building.

schoolspecialty.ca – Phone: 1.866.519.2816



FEATURES

SHARE

Making Social Media Work for You

Meagan Gillmore

9

STRESS

Coping Techniques and How to Use Them

Martha Beach

23

COLUMNS

Classroom Perspectives:

Little School, Big Heart

Lorraine Lapp

12

Field Trips: Visual Art

27

Webstuff: Coding

7

CURRICULA

Shattered Ground: Lesson 1

The Need for War 16

AD INDEX 26



EdTech

THAT ADAPTS TO YOU



With a broad range of devices for a variety of budgets and learning styles, Windows 10 allows for an optimized educational experience to create dynamic learning experiences for every type of learner.

Learning Styles and Accessibility needs

Windows supports the widest array of assistive learning technologies. Kinetic learners can learn by doing using touch and pen input. Audio learners are supported as all audio files run on a Windows device. Moreover, learners and educators can control their devices using the built-in Speech-to-Text feature.

Multi-tasking

With the Windows 10 Start menu and improved fundamentals, students and teachers can become experts right away. Windows multi-doing abilities help students and teachers get things done faster, and save time – get things done in a snap with Snap Assist, Virtual Desktop, and Task View.

Collaborative Learning on all devices

Students can choose from web, mobile, and desktop versions of apps that allow for a dynamic classroom, and encourage collaboration creativity, critical thinking and communication skills, such as OneNote, OneDrive, and Office 365. Students can work on the same documents at the same time within the same classroom, or from different parts of the world.



HP Stream 11 Pro G3

Upgrade classroom learning with the thin, light, and powerful HP Stream 11 Pro.

CDW 4363996

Starting at **\$306.99**

- Intel® Celeron® N3060 processor (1.60GHz)
- Memory: 2GB
- 32GB eMMC
- 11.6" TN 1366x768 (HD)
- Intel® HD Graphics 400
- Win 10 Pro 64-bit



ASUS Transformer Book T100HA

The improved T100HA gets a significant performance with the improved processor.

CDW 4253039

Starting at **\$419.00**

- Intel® Atom x5 Z8600 processor (1.44GHz)
- Memory: 4GB
- 64GB eMMC
- 10.1" IPS 1280x800
- Intel® HD Graphics
- Windows 10 Home



Acer TravelMate® B117

The TravelMate B series notebooks are designed to enhance the learning experience.

CDW 4367594

Starting at **\$544.99**

- Intel® Celeron® N3050 processor (1.60GHz)
- 4 GB RAM
- 500GB HDD
- 11.6" 1366x768 (HD)
- Intel® HD Graphics
- Win 7 Pro 64-bit/ Win 10 Pro 64-bit



Lenovo N23 Windows Touch

Designed for broader digital learning with Windows 10 productivity and Lenovo reliability.

CDW 4297410

Starting at **\$379.00**

- Intel® Celeron® N3060 processor (1.60GHz)
- Memory: 4GB,
- 32GB eMMC
- 11.6" TN 1366x768 (HD)
- Intel® HD Graphics 400
- Windows 10 Pro National Academic

CDW.ca/eduwins | 800.800.4239



© 2016 CDW LLC. CDW® and PEOPLE WHO GET IT™ are trademarks of CDW, LLC. All other trademarks and registered trademarks are the sole property of their respective owners.

Coding

Programming is a useful skill for all kids to learn. Not only will it allow them to become creators of technology, but can also aid in the development of other critical thinking and problem-solving skills. Here are some apps that should get kids excited about coding from a young age.

Cargo-Bot (iOS, Free)
www.twolivesleft.com/CargoBot

Cargo-Bot is an iPad app suitable for elementary students ages 10+. The objective of the game is to move coloured crates from one place to another by programming a claw crane to pick up, drop, and move left or right.



Scores depend on how concisely the code is designed and how efficiently the crane works. Students can even record their solutions and share them on YouTube.

Codecademy (Free)
www.codecademy.com

Codecademy uses interactive exercises that are organized into lessons to teach users how to code in several programming languages, including JavaScript and Python. Codecademy is more challenging as it asks users to type syntax and coding sequences and is recommended for students ages 13+.

Hopscotch (iOS, Free)
www.gethopscotch.com



Hopscotch allows kids to code by simply dragging blocks that contain specific actions. The fun and creative format gives students a blank canvas to “code” anything from mini-games, to creative drawings, and even Minecraft remakes. Hopscotch also offers help videos, community forum, and curriculum.

Move the Turtle (iOS, \$5.49 CAD)
www.movetheturtle.com



Like the name suggests, this App teaches coding to kids ages 5+ by moving a turtle around. As the turtle moves around, it creates geometrical patterns and shapes. Kids will learn the basics of programming in a colourful, graphic environment. They will learn how to plan complex activities, how to reuse previous work, and how to use graphics, spatial orientation, and sound in programming. Each new level increases in difficulty, and teaches a new command that directs the turtle to reach its destination.

Tynker (Free to try)
www.tynker.com

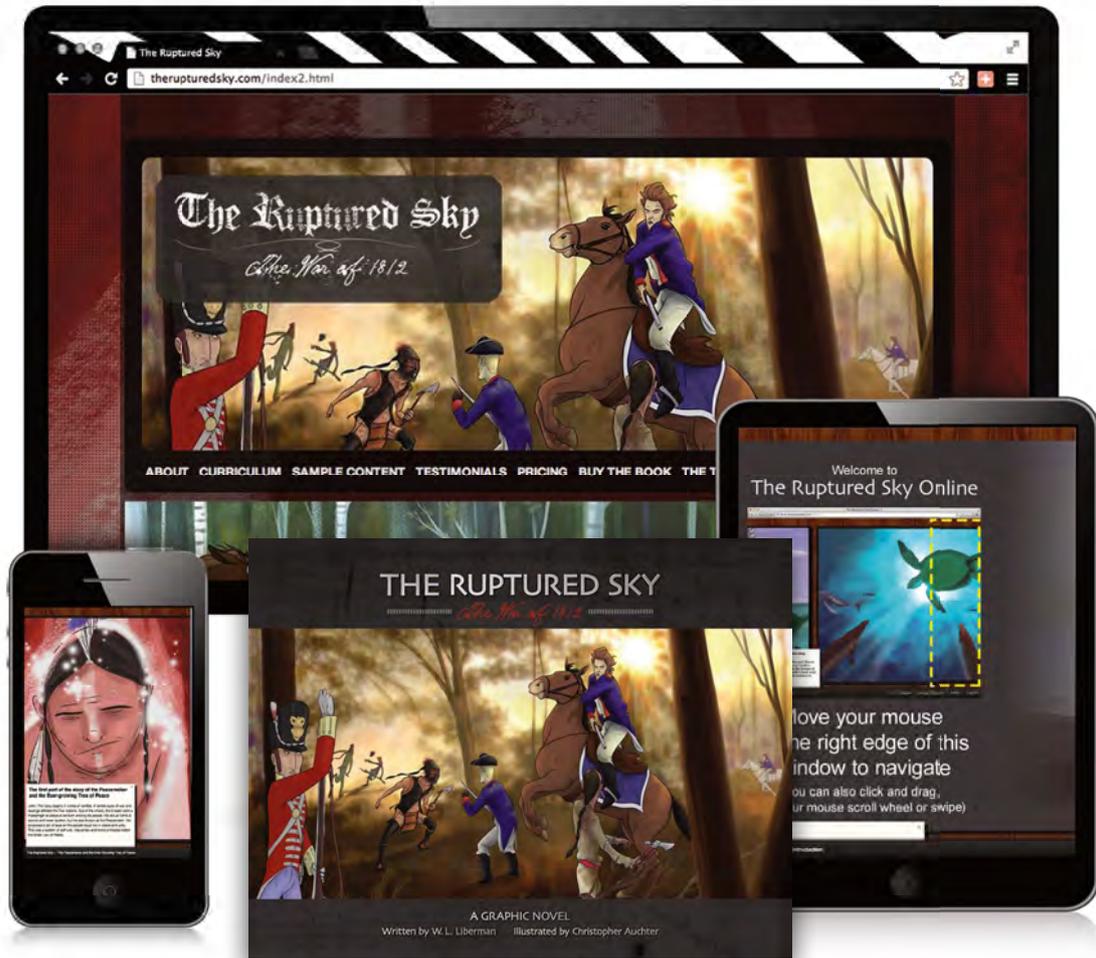


Tynker is a complete learning system that teaches kids ages 7+ to code. They begin with visual blocks, then progress to text-based coding as they design games, and build apps. Students can choose to explore learning coding basics, that includes game-based courses. They can then move on to modding Minecraft, commanding drones, developing games, and learning JavaScript and Python through the app. The app also features started lesson plans, classroom management tools, and an online showcase of student-created programs.

The Rocket Cupcake Co. (iOS, \$3.99 CAD)
www.goldieblox.com

The Rocket Cupcake Co. introduces kids ages 7+ to coding through a story-based adventure. Kids learn coding fundamentals with characters Goldie and Ruby as they deliver cupcakes all around BloxTown. Users code the path for the characters to pick up the ingredients and then deliver the finished cupcakes. The puzzles and games teach sequencing, mental modeling, and debugging. The App is developed by Goldie Blox, a multimedia company that seeks to empower girls to enter the STEM industry.

THE RUPTURED SKY IS OFFICIALLY APPROVED!*



The Ruptured Sky is a digital literacy title that explores the War of 1812 from First Nations perspectives. A great resource for teaching social studies, history, literacy, and First Nations curriculum.

SEE MORE INFO AT THERUPTUREDSKY.COM



PEARSON

TEACH
MAGAZINE • LE PROF

* Officially approved resource for the Manitoba Ministry of Education, York Region District School Board and the Toronto District School Board.



MAKING SOCIAL MEDIA WORK FOR YOU

by Meagan Gillmore

Digital communication, including social media, is more than just a fact of life. It is life, integral to the professional and personal existence of many students and teachers. Teachers flock to Twitter to ask other educators for advice. Instagram provides visual accounts of student work and classroom arrangements. Posting news on Facebook has, in some schools, all but replaced printing paper newsletters.

Some school districts and classroom teachers have official social media accounts. While some educators used to dismiss social media, now teachers use it not only to plan their lessons, but also to deliver them.

This is vastly different than outright banning mobile devices in the classroom. And, some say, more realistic.

"We live in a world where everybody has a phone," says Jon Hamlin, who teaches information technology at Pinetree Secondary School in Coquitlam, BC "If we're going to paint that different version of reality within our classroom, then we're not really doing the students much of a favour."

Social media can work in various subjects. Teachers post videos detailing math lessons on YouTube. Students learn about geography and social studies by connecting with

students worldwide in real time. Some classes participate in "Mystery Skype" video calls. Two classes chat with each other, without knowing where the other class is. They ask each other questions to determine the location.

Students use social media to engage with historical events or literature. They may create a mock Facebook account offline for literary characters or historical figures. They can directly communicate with the authors whose books they read, or learn more about current political leaders on Twitter or Skype. More simply, teachers can use social media to explain how people communicate differently in different contexts. Students may not need to use proper capitalization or spelling in texts or tweets, says Cari Wilson, a Grade 7 teacher at Ridgeview Elementary School in West Vancouver, BC, but they need to when writing class assignments.

"You would send an email to your boss one way, but you would text your friend a different way," she explains. "They're both communication, but there are rules that go with both of them. That's an important thing for kids to know."

Teachers also need to understand the rules of social media. Many people worry too much that digital communication can seriously hamper meaningful thinking. If teachers want to use social media wisely in the classroom—either by teaching about it, or teaching with it—they need to break the rule of instant communication. They'll need to seriously think about why and how they're using social media, and help their students do the same.

Teachers should only use social media as a teaching tool to improve their students' education. "If it's not to the

"People don't have the opportunity to hear your rebuttal or your voice when they see content online that reflects poorly on you... they're not going to stop and ask you to clarify that. They're going to make judgements and make assumptions."

betterment of your kids, why are you doing it? It may not be for you," says Brian Aspinall, an elementary teacher in Chatham, ON who speaks and blogs about technology and educational reform. "Don't do it because you went to a conference on Twitter and someone said you should do it."

Different social media platforms work better for different tasks. Teachers need to use them accordingly. Aspinall adopted Twitter years ago, and often uses it to gather feedback from other educators. But that's not his primary way of using social media with students during class. He teaches in an open-concept school; students from various grades work together. Students may not have a teacher nearby they can ask to help them. Instead, they often post questions on Snapchat. That's helpful, Aspinall says, because posts don't remain visible, preventing online clutter. He showcases classroom projects on Instagram, like a gallery.

Teachers need to use social media responsibly themselves. Hamlin advises teachers to thoroughly review their own digital profile—even posts from years ago—to ensure it reflects the image of themselves they want others to see. He teaches his students to do the same, with a whole unit devoted to understanding their digital footprint. Online posts reflect character, he tells his students, but the nature of digital communication means students may not have the chance to explain what posts mean.

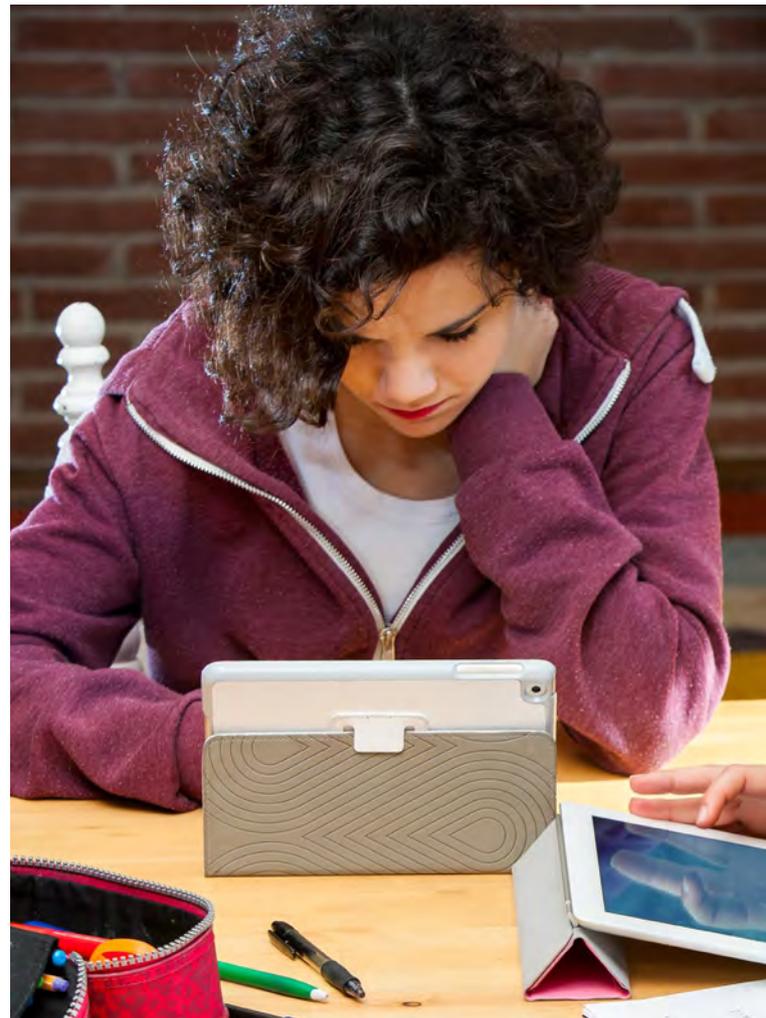
"People don't have the opportunity to hear your rebuttal or your voice when they see content online that reflects poorly on you," he says. "They're not going to stop and ask

you to clarify that. They're going to make judgements and make assumptions."

Teachers need to clearly explain how social media works before they introduce it to their students, says Nina Silver, a Toronto high school teacher who has been involved with the Association for Media Literacy for nearly 30 years. This means educating students about who owns and can use the content they post, and reminding them about how fast—and far—digital information spreads. Teachers need to do this even if they're using social media to teach math or science and not a specific media literacy course. Social media is a tool, just like calculators, computers and textbooks, she says. "We have to teach them certain concepts about using those tools first."

One way to do that is have students manage a classroom social media account. That's what Cari Wilson is doing this year. She's divided her students into pairs, and each pair is responsible for posting to the class Twitter account for two weeks—on Tuesdays and Thursdays because they start with "T," like "Twitter," she explains. Students can only post from her device. She approves all posts.

Students aren't graded for this, but Wilson says it's an important way to teach them about being good digital citizens, a vital skill in a digital world.



"I think part of that teaching of digital citizenship falls on the school," she says. Parents may not have the knowledge or time to teach these skills to their children, she adds, and teachers see the "fallout" of poor digital citizenship: cyberbullying, or students becoming upset when they misinterpret text messages.

Social media increases teachers' connections: they often communicate with other educators on it, and then meet them in person at conferences. But for many students, social media adds a frustration and anxiety to social interactions. Teachers need to consider this.

Today's students are more likely to be on Snapchat and Instagram, and they're not all using these platforms positively. Aspinall sees students defining their self-worth with it, taking dozens of selfies before posting one they think will get the most attention. "They're looking at these metrics as sort of self-worth and I think we've got to start unravelling that," he says. "We have to acknowledge that it's okay to not be perfect."

Silver suggests teachers have students write down how many social media connections they have. Then, they should determine how many they've met in-person during the past 12 months, and how many they've directly messaged in the last week. Students often see social media connections

as just numbers, and they lose personal connections with people, she says. This can help students "do some deep searching" into how these platforms impact their relationships.

Teachers should be honest about how the stress of social media affects them, says Wilson. She'll tell students about how she finds it difficult when she can't respond to messages from other teachers while she's cooking, for example. It's similar to how some students may feel when

Social media is a tool, just like calculators, computers and textbooks... "We have to teach them certain concepts about using those tools first."

they can't respond to messages at night because their parents don't want their phones in their rooms. Adults don't often see this level of communication, so they don't understand why it's important to kids, she says.

She wants the classroom Twitter account to help students learn to navigate the social pressures of social media before they enter high school and the pressures increase.

"As a teacher in the classroom, you're the one who's kind of guiding the ship," she says. "You know where you want the ship to go, but having the kids help guide the ship, and helping them teach each other and teach you about things gives them a power that I think kids find really exciting."

It can be positive, if teachers direct it properly. For the past few years, Nicole Blais's students at St. Mary's Elementary School in Lloydminster, AB have been Skyping with classes in Uganda. (The school has a connection with Our Village Uganda, an organization that educates children in northern and eastern Uganda.)

Social media helps the students understand life in other countries. Textbooks can only explain so much; social media can really help students "get" what poverty looks like, says Blais.

"I really believe in ... making (students) realize that there is more than just the four walls around them, and that it's not all about being in the classroom," she says.

Her students have raised thousands of dollars for Ugandan students, helping the school purchase windows, doors and a playground.

"They actually get to see the difference that they're making in someone else's life, even though they may not know that person very well or they may not ever meet that person in-person," Blais says.

That's one digital footprint worth preserving.

Meagan Gillmore is a freelance writer in Toronto.





LITTLE SCHOOL, BIG HEART

by Lorraine Lapp

It began on a lovely spring afternoon in 2015, when a Grade 7 student came up to me during recess:

Student: *"Do you know Rick Mercer?"*

Me: *"Yup."*

Student: *"Do you know about his Spread the Net?"*

Me: *"Yup."*

Student: *"Could we do that?"*

And with that brief exchange, a seed was planted, one that would eventually grow into one of Macville Public School's most powerful and positive experiences. The Spread the Net Student Challenge is a friendly competition between Canadian schools to raise funds for malaria-preventing bed nets for families in Africa. The fundraiser is run by Plan International Canada and the top schools win a visit from Rick Mercer, a Canadian comedian who pokes fun at current events on CBC Television's Rick Mercer Report. He also co-founded the Spread the Net initiative.

We kicked off the Challenge with an early-January assembly led by the Grade 8's who were eager to shine as school leaders. The goal was to raise \$2500 in only two

months—about \$10 for each of our 240 K-8 students. Using props and promotional materials provided by Plan International Canada, they described how \$10 would buy one bed net to help save two lives from malaria. I remember looking down at the faces of some of the kindergarten students—they may have been paying attention, but they weren't making connections—yet. Within a few days, the kindergarten classes would play a major role in the campaign.

Our first fundraising event was simple: a volleyball tournament during recess. Charging a \$1 admission to play or watch, we collected our first \$50. A few days later we hosted a spelling bee for Grade 1 to 8 spellers and their fans who each paid \$1 admission—another \$50! Next came an indoor soccer tournament suggested by our Grade 3 students. More than \$100 was raised. The students kept asking for more events.

A group of Grade 3, 4, and 5 artists then asked if they could sell their drawings, paintings, and origami. They worked on their own time and set their own prices: another \$100+! Students made daily announcements about Spread the Net and signs were posted advertising each event.

When some of the "kindies" created a jewellery store as part of their play-based learning, one of their teachers realized she could make the social justice issue relevant



by putting the students' jewellery-making talents to work. Simple and inexpensive materials such as fabric, cords, beads, and washers were painted with nail polish or decorated with flashy stickers transforming them into funky and fun items. Class-created posters advertised the sale and notes were sent home to parents. The "kindies" set up shop in their classroom, complete with cash register and store-front signs. Opening day brought in more than \$300!

Another student in grade 3 asked her mother if she could sell hot chocolate at a pond rink close by. After municipal approval, and with strong support from the community and her family, she raised \$300.

Other students even donated their birthday money!

Our most memorable fundraising event was undoubtedly "Pie in the Face." Ten teachers volunteered to be "pied" with whipped cream in front of the whole school in exchange for donations. For each \$5 donation for this event, students got a ballot for the chance to be the pie thrower for a particular teacher. Take it from me—nothing spells school spirit more than having cold, sticky ooze sliding through your hair and down your face while 250+ people howl with laughter. This event was a fan favourite, raising more than \$1500, mostly in coins. What was to be done with all that change? It helped to have a colleague whose bank account included a no-fee coin-counting service!

The Grade 7's and 8's, who were leading the Challenge, designed a fundraising thermometer that was posted in a hallway. The thermometer's gauge was marked by dollar amounts and hand-drawn mosquito logos. Each mosquito



represented \$100 collected. We soon needed another thermometer, then another... then the \$100 was changed to \$500...then we began to lose track of how many mosquitos we needed!

Near the end of the Challenge, we held another school assembly that attracted a wider audience, including the mayor, regional media, and a former student and local business owner who presented us with a \$1000 cheque! Our efforts had reached the broader community. The buzz grew. Donations poured in online right up until the midnight deadline at the end of February. Ultimately, we raised \$11,474—enough to provide almost 1200 malaria-preventing bed nets for families in Africa.

And it wasn't over yet. Thanks to overwhelming student and community response, our small, rural school won the top spot in all of Canada in the elementary category. Early in March 2016, Rick Mercer and his television production team visited. He was recorded crafting jewellery with the "kindies," interviewing the Grade 8's who led the Challenge, and even being "Pied in the Face", all for part of the 2016 Spread the Net Student Challenge winners' episode of the Rick Mercer Report.



Participating in the Spread the Net Student Challenge ended up being more than just winning a prize. Our collective community spirit and engagement reached a level I haven't experienced since I began teaching at Macville Public School more than 15 years ago. It began with an idea suggested by a student that evolved into a movement led by youth, for youth. The students, even the youngest ones, understood that every dollar raised, every poster they created, and every new fundraising event that took place went toward helping real children and their families to have bright and healthy futures. The campaign moved fast, was fun, and reminded our students that the power of one person's idea can change other people's lives. Many of our students' ideas can be applied to future fundraisers while continuing their legacy of being active local and global citizens who are creating profound and positive change.

Lorraine Lapp is a teacher at Macville Public School (Peel District School Board).

OUR NEWEST PROJECT IS NOW AVAILABLE



**SHATTERED GROUND:
SOLDIERS MARCHING OFF TO WAR**

An educational, interactive project commemorating the First World War centenary. Shattered Ground is designed to engage students in an exploration of the main educational themes related to the First World War, the impact of War on a way of life, and the legacy of sacrifice that is part and parcel of engaging in conflict.

SIGN UP TODAY!

theshatteredground.com





CURRICULA

FOR GRADES
9 TO 12

The following is a lesson plan excerpt from *Shattered Ground*, a graphic novel and digital literacy title. To see the full lesson plan or to learn more, please visit theshatteredground.com.

LESSON 1: **The Need for War**

Shattered Ground is an interactive, digital resource that explores the First World War. The narrative follows the story of four young men and their war experiences extending through tragedy and triumph. It is important for students to attempt to put themselves in the footsteps of the youthful characters, to gain the deepest sense of war, what it encompasses and ultimately, its impact on people's lives, on societies, and continents. On the macro level, a major conflict such as the First World War alters the dynamics of nations but also affects people in very personal ways be it injury, loss, or death. The story unfolds in the form of a graphic novel that is available in three formats: interactive, e-book and hard copy. The foundation of the project is rooted in commemorative anniversaries that link back to the beginnings of the First World War and milestone events such as the Battle of Vimy Ridge, for example. In the end, it is important to critically assess what took place all those years ago if only for the purpose of determining how such destructive conflicts may be avoided in the future.

SUBJECTS

History 1900-1919,
Political History,
War and Society

DURATION

3 to 4 classes

INTRODUCTION

Wars rarely erupt overnight. In the case of the First World War, a series of events and an array of personalities played a significant part in leading nations into the war. Although, on the surface, the war began as a result of the assassination of the Archduke Ferdinand in Sarajevo, this event acted as a catalyst that put the match to a fire that had been burning for years. For example, there had been growing animosity between Germany and England since the turn of the century with increasingly bellicose statements made publicly by major figures on both sides and this, despite the fact that the German Kaiser and English royalty were closely related. The Kaiser, for example, was Queen Victoria's grandson. Relations between the two countries had soured, putting them on a tense footing so when conflict arose, neither was willing to step back. Germany committed to acts of aggression and Great Britain responded. Students will gain insight into these conditions and understand how these events led the world to a war with such tragic consequences.

KEY CONCEPTS AND ISSUES

Students will gain insight into the background events of the First World War and explore what brought nations into the conflict. What were the factors, influences, loyalties, and strategies that compelled countries to engage in battle? What were the messages conveyed to civilian populations by governments concerning their reasons to declare war on their 'enemies'? How did the public respond to this call to action? From more than a century's perspective, students will critically assess the events that led to the declaration of war, the prevailing reasons, and why it appeared that there was a need to engage militarily on the part of the alliances that developed on either side. Students will then apply this newfound insight and knowledge to current events and conflicts ongoing in various parts of the globe.

MATERIALS REQUIRED

- Shattered Ground graphic novel
- Computers or devices with Internet access
- Maps of Europe Pre-1914 and map of Europe post-war: www.nationalarchives.gov.uk/pathways/firstworldwar/maps/europe1914.htm
www.nationalarchives.gov.uk/pathways/firstworldwar/maps/europe1919.htm
www.warmuseum.ca/firstworldwar/introduction/maps

EXPECTATIONS/OUTCOMES

Students will:

- Increase their knowledge of Canadian history and Canadian military history in particular;
- Understand the forces at work behind the scenes that led to the outbreak of the First World War;
- Describe the events that took place that precipitated the War;
- Gain insight into world history and world events;
- Analyze how political forces and alliances have significant consequences;
- Appreciate Canada's role in the First World War;
- Communicate their ideas, arguments and conclusions using various formats and styles as appropriate.

BACKGROUND

Prior to the outbreak of the First World War in June, 1914, Archduke Franz Ferdinand was assassinated by members of a Serbian nationalist group in Sarajevo, Bosnia-Herzegovina. The configuration of countries in Europe looked different from the period after the war and certainly much different than today. Unknowingly, this suspected small band of fanatics set off a chain of events, the consequences would affect millions of people across continents, cause undue hardship and sorrow for entire populations, devastate economies, and alter the geo-political reality of the globe unswervingly to the present day.

The Archduke Ferdinand was the head of state for the Austro-Hungarian Empire. The Serbian nationalists thought that by assassinating him, the power and influence of the Austro-Hungarian Empire would diminish or break up. In a way, they were right. That political entity ceased to exist after the War ended. In the interim, a chain of vitally important events unfolded.

As a result, Austria-Hungary mobilized an attack against Serbia. Germany, ally of Austria-Hungary, also attacked Serbia. This motivated Russia, Serbia's key ally, to mobilize its forces. To pre-empt what they anticipated would be a two-front war, Germany invaded France. On its way to France, Germany invaded Belgium—a country that had maintained neutrality for over a century. Britain, in defense of Belgium, declared war on Germany. By virtue of being a member of the British Empire, Canada was entered into the War automatically upon the British declaration. Canada did not declare independently as it did at the outbreak of the Second World War. Likewise,

Australia and New Zealand also entered the War in the same way.

Here's how the structure of warring nations looked at the time:



The Triple Entente or Allies:

- Serbia
- Russia
- France
- Great Britain
- Australia, India, Canada, Newfoundland (Newfoundland didn't join Confederation until 1949), New Zealand, South Africa

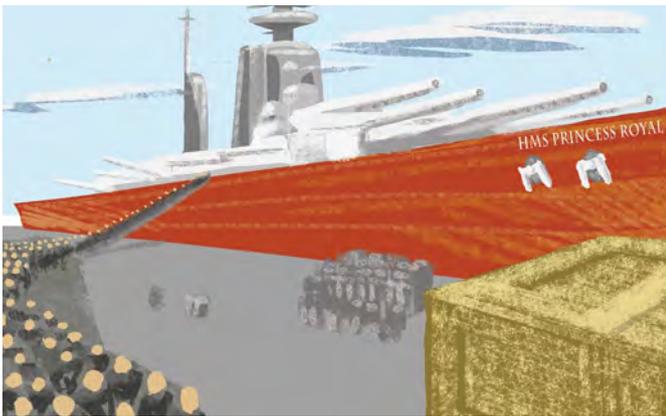
The Central Powers:

- Austria-Hungary
- Germany
- Ottoman Empire
- Japan
- Italy
- United States
- Portugal, Belgium, Romania, Greece
- Montenegro, San Marino, Brazil, Costa Rica, Cuba, Ecuador, Guatemala, Haiti, Honduras, Nicaragua, Panama, Peru, China, Siam, Liberia

Neutral Nations:

- Netherlands
- Switzerland
- Spain
- Sweden
- Norway
- Denmark
- Finland
- Iceland

As mentioned, Canada was part of the Commonwealth and although it controlled its own affairs to an extent, when Great Britain declared war on Germany, from a legal perspective, Canada declared as well. In all, Canada contributed approximately 619,000 personnel to the war effort. For a country whose population was just below eight million, this represents about seven percent of the population that wore the military uniform, with hundreds of thousands more engaged in the war effort on the home front. It was an extraordinary effort. Canada's 'automatic' entry into the war did spark discussions concerning Canada's role in the Commonwealth and its relationship to Great Britain and it is this open dialogue that led to Canada carving out its own path in global affairs independent of its obligations to the Queen.

**STEP ONE: TEACHER-LED DISCUSSION**

Have students refer to the map links above. Discuss the differences between the pre-1914 European map and the post-1918 European map. **What changes occurred?** Explain that the redrawing of maps and boundaries, in this instance, are tied directly to the victors and losers in a large-scale conflict. Simply by looking at the maps, can students determine who won and who lost the First World War? The map changes represent significant outcomes on a macro level, i.e., governments falling, boundaries changing, civilians displaced, and so on. **What do students think**

would have been the impact on individuals, families, men, women, and children? If possible, come up with a list of possible outcomes resulting from conflict on the grand scale. Factors to bear in mind include: impact on the landscape, on villages and towns, on economies, lifestyles, language, customs and culture, loyalties, governance or lack thereof, the Arts, political movements and ideals, to name some.

STEP TWO: POSE THE BIG QUESTIONS

Have students consider the following questions:

- **Why do nations go to war?**
- **What happens when societies ignore history?**
- **Are there any benefits to waging war?**
- **How do countries cope with the aftermath of war?**

Divide the class into small teams of four or five students. Each team will select a question and discuss the issues among themselves without having conducted any research, making notes as they go. Have the teams report orally concerning their findings. What have they discovered? What themes have emerged from their discussions. Make note of them.

STEP THREE: REDUCING THE SCALE

Examining large questions is important, but impersonal. To understand how events like wars occur, it is useful to look at the background conditions and the interplay and rivalries between nations that bring them to the brink of conflict. Seeing the big picture is fundamental to understanding the sequence of events and how they play out. As background, researching the lead up makes sense. It doesn't, however, generate insight or understanding of the role individuals played or the impact on people be they soldiers, civilians, families back home, medical personnel or statesmen, and women. In a large-scale conflict like the First World War, millions of individuals are affected in a variety of ways. Have students pick an individual and research their life and the role they played during the Great War.

Here are some suggestions:

First World War Diaries:

www.veterans.gc.ca/eng/remembrance/those-who-served/diaries-letters-stories

www.warmuseum.ca/firstworldwar/wp-content/mcme-uploads/2014/08/2-a-1-d-letter-from-scrimger-kl.pdf

Individuals:

- Archduke Franz Ferdinand
- Gavrilo Princip
- Kaiser Wilhelm II
- Field Marshal Sir Douglas Haig
- Marshal Foch
- Sir Robert Borden
- General Sam Hughes
- Sir Julian Byng
- Lt-Col John McRae
- Billy Bishop
- William George Barker
- Harry Brown
- Harry Norwest
- Cpl. Francis Pegahmagabow
- George McLean
- Grace McPherson Livingston
- Nelly McClung
- Emily Murphy
- Julia Grace Wales
- Florence Carlyle
- Caroline Armington

Follow this link to Library and Archives Canada. There are 100 individual stories documented here and may be used as an additional source for crafting these narratives: www.bac-lac.gc.ca/eng/discover/military-heritage/first-world-war/100-stories/Pages/introduction.aspx. Students will research the life and times of the individual selected. They will write a short biography of that person (up to two pages) and submit it to the teacher. Students should include details such as why they chose that person and what characteristics made them unusual or special. They should also answer the following question:

- **How has researching this individual's life provided greater insight and understanding into the First World War?**
- **Were their accomplishments important?**

STEP FOUR: ALTERNATE SCENARIO

Have students meet in their teams and discuss the following: **What might have happened if the Archduke Franz Ferdinand had not been assassinated in Sarajevo? What impact, if any, might this have had on the start for the First World War?** Have the student teams draw up a plausible scenario as to what they think might have happened and listing their reasons why. Each team will then make a presentation to the class explaining their alternate scenario building a persuasive case for their



thesis. Some questions to consider: **Would there have been a war at all? If that is the case, what outcomes would have taken place in Europe, the UK, and North America? How would the parties involved in a growing dispute leading up to the First World War have resolved their differences? If war would have been declared regardless of the assassination, how might events unfolded differently?** Student teams will use any archival and digital resources at their disposal and should be encouraged to be creative and innovative in their presentations. For example, students may put together a role play where team members portray representatives from different factions involved in the war; they may produce a video, storyboard or a website, even a PowerPoint.

STEP FIVE: THE GREAT DEBATE

The decision to go to war is never simple or easy. In a democracy, the government of the day must gauge and balance the will and interests of the electorate, whether they are in favour of or opposed to the country's entry into warfare. The question of declaring war on another nation has sparked heated debates within governments who are faced with this very serious issue. It also begs the question whether any democratic government was elected with a clear mandate to go to war. Wars are often unanticipated and as in the case of the First World War, may erupt suddenly due to a confluence of events triggered by a single act, in this case, the assassination of a head of state. The decision to go to war may be the most contentious and certainly serious decision any government may make. That decision may impact the future viability of the country as well as the viability of the government of the day.

The student teams will then debate the issue of going to war examining a given war's causes and short, medium, and long term effects, as well as justifying that momentous decision. The debate question may be something like, 'Be it resolved that the government's decision to go to war was justified based on the following reasoning.'

Student teams will be divided into the pro and con side of the debate and depending how many student teams in a given classroom, a number of Wars may be included, the First World War notwithstanding. It is also possible for the student teams to take different sides, for example, if the debate explores the First World War, a team may represent the German or the British side, the Canadian or the Turkish side, and so on. A range of wars may also be explored exclusive of the First World War, again, for example, The Second World War, The Korean War, The Vietnam War, the war in Iraq or Afghanistan, the Six Day War, and the Yom Kippur War in the Middle East, and so on.

While two teams are presenting their sides of the debate, the rest of the class will act as spectators and judges voting on who they felt won the debate. Debate notes, papers, research, etc., will be handed into the teacher for assessment.

STUDENT EVALUATION QUESTIONS SPECIFIC TO THE LESSON PLAN

Before (Pre-Implementation)

Do students have a general understanding of the First World War and its consequences?

Do students have a clear understanding of differences between nations and their interests?

Do students have any prior understanding of the circumstances that led up to the outbreak of the First World War?

Are students familiar with the role of government when it comes to making the decision to engage in warfare?

After (Post-Implementation)

Students will describe the forces at work that formed the basis for nations to go to war.

Students will reflect an understanding of how differences in beliefs and attitudes can lead to misunderstanding, sometimes on a large scale with significant consequences.

Students will reflect on, and explain their ideas about the societal impact of Canada's decision to participate or more accurately, acquiescence in the First World War.

TEACHER EVALUATION QUESTIONS

Before (Pre-Implementation)

Do you have a general understanding of Canada's participation in the First World War?

Do you have a clear understanding of the circumstances that led up to the outbreak of the First World War?

Do you have any prior understanding of processes democratic governments must undertake when making the decision to go to war?

Are you familiar with the differences between nations at the time that led to the circumstances of the War's outbreak?

After (Post-Implementation)

Describe how Canada participated in the First World War.

Share an understanding of the circumstances that led up to the outbreak of the War.

Reflect on, and explain your ideas about, the impact of the First World War on Canadian society of the day and further, the repercussions felt after the War had ended.

ADDITIONAL RESOURCES

The War that Ended Peace: The Road to 1914, Margaret MacMillan, Penguin Canada, Toronto, 2013.

www.warmuseum.ca/firstworldwar

www.veterans.gc.ca/eng/remembrance/history/first-world-war

www.thecanadianencyclopedia.ca/en/article/first-world-war-wwi

www.en.wikipedia.org/wiki/Military_history_of_Canada_during_World_War_I

www.bac-lac.gc.ca/eng/discover/military-heritage/first-world-war/first-world-war-1914-1918-cef/Pages/canadian-expeditionary-force.aspx

ww1.canada.com

www.canadashistory.ca/Great-War-Album/Home

www.canadiangreatwarproject.com

www.thegreatwar.ca

www.theglobeandmail.com/news/what-life-in-canada-was-like-before-the-first-world-war/article19342310

www.cmp-cpm.forces.gc.ca/dhh-dhp/his/docs/CEF_e.pdf

80 DEGREES NORTH

**BRING AN HISTORIC TALE
OF DISCOVERY AND ADVENTURE
INTO YOUR CLASSROOM**



80 DEGREES NORTH is a FREE bilingual teaching resource that explores topics of scientific inquiry, examination of Inuit culture, and Canadian sovereignty — all part of the Canadian Arctic Expedition of 1913-1918.

SIGN UP TODAY!

80DEGREESNORTH.COM



COPING TECHNIQUES AND HOW TO USE THEM

by Martha Beach

Mid-word, mid-lesson, you notice Richard is on his phone looking up memes and Matt's eyes are drooping. The students aren't learning. You also have report card comments to begin writing, on top of the staff meeting after school. Oh, and you've just remembered you need to photocopy today's homework pages. You stammer, your brain moving faster than your mouth. Your heart starts to race, your breathing quickens, and your stomach turns over. The worst part is you've felt like this at some point every day for the past three weeks. You're stressed. The good news is you can learn to recognize your stress response and how to reduce it so you can actually solve the problem at hand.

Recognize and Respond

Stress can be useful: it fires up our brains and bodies. Physiological changes take place (booming heart,

quickened breathing, stomach butterflies) as our sympathetic nervous system (fight or flight) kicks in. Simultaneously, the parasympathetic system (rest and relax) gears up to help calm us down. "When you solve the problem, the stress response goes away," says Stanley Kutcher, a professor in the Department of Psychiatry at Dalhousie University in Halifax. Sometimes we are so overrun by physiological and emotional symptoms that we can't focus on the problem. Often, "stress response can be dampened by our own cognitive ability. We can calm ourselves down," says Kutcher. Ask yourself, 'Why do I feel like this? What is causing it? Is it good or bad?' "You don't have to focus on a leaf going down a river, you can just focus on your thoughts and what you're going to do. You don't need a manual or an app," Kutcher advises.

Another option for decreasing stress response is by controlling breath. "When you control your breathing, you control the diaphragmatic muscle, and when you slow down the diaphragm, it has a huge effect on the



[parasympathetic] system through the vagus nerve," Kutcher explains. The vagus nerve "sends a signal that tells your brain to calm down, which in turn tells our body to relax."

Doug Friesen, a music educator and current teacher at the Ontario Institute for Educational Studies (OISE), uses breath as a main tool to calm himself down. "Take that split second to breathe. Remember you're a person, they're a person, and everything is just a conversation. That helps me to focus less on the product and more on the moment," he says. Pause. Take a deep inhale, a controlled exhale. "Sometimes I will go so far as to push my feet down into the ground to have something to focus on."

Plan and Prep

Stress is something Jocelyn Hay, a Toronto-based French immersion Kindergarten teacher, is very familiar with. "Kindergarteners need a lot of your attention and you are required to move a lot to engage all students," she says. Hay often feels run down, especially near the beginning of the year. A large source of stress stems from increased expectations with limited time. "So many things get piled on, which causes me to forget more, which adds to the stress which then distracts me more... it creates a rather awful negative loop," Hay laments.

Hay has developed some strategies: she creates multiple lists in her journal to remind herself of important tasks and she uses an agenda to keep track of events.

Marjorie Navas-Garcia, a teacher in Toronto, tries to plan lessons and activities for the whole week, instead of the night before, to stay organized and be prepared. Hay gets creative with her prep: "I surf Pinterest a lot. There are a lot of fun ideas on there and it helps me plan some crafts or learning centres." She also takes breaks throughout the day.

"It really helps me refocus," she says.

Even in the middle of a lesson, it's okay to take a collective break. Navas-Garcia will often read out loud. "It tends to calm everybody down and it gives me a chance to catch my breath." Taking that moment is very important. "Acknowledge that people aren't focused and change the approach," advises Friesen. If no one is listening because no one is focusing, then no one is learning. "For learning to occur, there has to be interruptions. Make an intentional interruption of the pattern that isn't working." Friesen, a musician at heart, will often do body percussion exercises: "Quick stuff, like clapping call-and-response, thigh percussion, stomping. It helps re-focus the kids, or even just me."

Low-stress Environments Are Not Always Beneficial

No stress is good stress, right? Some think otherwise. "People now equate normal stress with toxic stress," Kutcher argues. The stress industry has created a fear of stress, he says. "Yes, toxic stress does happen to some of us some of the time, but not most of us most of the time." When humans are functioning with either very low or very high levels of stress, we perform poorly. Physiological aspects of a stress response (elevated heart rate, quickened breathing) send oxygen to our brain and pumps blood into our muscles. In a low-stress environment, our brain and bodies are not sufficiently stimulated to get the job done. In a very high stress environment, they are overloaded. When we function with a moderate amount of stress, however, we perform very well. We have just enough stimulation to get us thinking and moving and are able to cognitively assess the situation to calm ourselves down in order to solve the problem. "Everybody needs optimized amounts of stress to perform optimally," Kutcher says. So procrastinators



Remember to Take Care of Yourself

Building and reaching out to your professional and social network is just the start. "There's lots you can do in terms of self-care," Friesen reminds us. Some of it is pretty basic: eat well, sleep lots, exercise. But there's more: "Sometimes teachers' lives become just the kids," Friesen points out. "Stay social, keep your own passions and interests. Navas-Garcia strives for work-social balance. "I do zumba on the weekends with my mom, see my friends as much as possible, and I go out for dinner even on weekdays even when I have to work the next day," she says. This is something Hay also strives for: "I try to constantly remind myself to enjoy the time to myself outside school," she says. "It's really easy to constantly think about school and what you're going to do that day, week, and month. But sometimes you really need some separate time for yourself."

Connect with Your Students Through Laughter

Take time to relax and recharge. Come in to class with a good attitude. "Kids are just people with lots of awesome knowledge about stuff," reminds

Friesen. And don't sweat it if you do experience stress. Take a pause. Use your breath.

Use your rational thinking. Or, just laugh. "You can't be stressed when you are laughing," Kutcher says. "It always takes away anxiousness and nervousness." Friesen

agrees: "Do something to take a break, even if it's goofy, get to know the kids,

don't be afraid to have fun and

make them laugh. Kids want to connect. Get to know your kids." Over time, learn to recognize and cognitively assess your own stress response. Take a bit of direct control. Find out how to ease the response needed to confront and solve whatever the problem might be. Be a good stress model for your students. Seek connection and encourage them to do the same. If all else fails: laugh.

Martha Beach is a graduate of Ryerson University's journalism program. Currently, she is a freelance writer and factchecker in Toronto.



ask for help

rejoice: "People who procrastinate have simply learned they perform better under stress."

In today's mindful day and age, schools strive to create low-stress environments. "It's complete nonsense because low stress causes low performance," says Kutcher. Kids begin to continually perform poorly. The cycle starts with teaching kids that stress is the enemy, and the stress industry meets that with modulation and avoidance, Kutcher says, but it does not teach us to solve the problem that is causing stress. As an educator, model ways to cognitively appraise the stress response. Teach problem-solving skills. Encourage students to reach out and ask for assistance.

Reach Out to Others

While some individual modulation is good (like meditation or mindfulness), too much can keep us separated. The emotional aspect of a stress response motivates us to solve the problem. Plus, during the parasympathetic response, our brain releases oxytocin which motivates us to seek assistance. "The whole purpose is to reach out to others to help you solve your problem," Kutcher says. Talk to other teachers, colleagues and friends. Hay even reaches out to an electronic network: "I'm part of a Facebook group for kindergarten teachers. There are helpful suggestions and it's comforting to know that there are other teachers out there that may be having the same difficulties as me," she says. Kutcher is a strong proponent of networking: "Teachers become better teachers and learners when they reach out. They get cognitively better and they create connection," he says. "Learn who are the people you can reach out to socially and professionally. And then do reach out to them: it's stress mitigating, it's a good model for kids, and it is good for your network."



laugh

26.3% OF POSITIVE HIV TEST RESULTS ARE YOUTH

Free ready-to-use teaching resources for a variety of subject areas related to HIV and stigma reduction

CANFAR.COM/CLASSROOM

ONEANDALL

A NATIONAL PROGRAM DEVELOPED BY THE CANADIAN FOUNDATION FOR AIDS RESEARCH

ADVERTISERS INDEX

ADVERTISER	PAGE
1 80 Degrees North	22
2 CANFAR	26
3 CDW	6
4 NSTA	28
5 The Ruptured Sky	8
6 School Specialty	4
7 The Shadowed Road	3
8 Shattered Ground	14



MISSED AN ISSUE? CATCH UP!

Download past issues from teachmag.com/latest-issue



Visual Arts

The Arts provide an avenue for expression, communication, imagination, and individuality. These are all important things to develop for students of all ages. These visual arts-based field trips give students the opportunity to explore their creativity and create their own masterpiece, just in time for the holiday, gift-giving season.

4 Cats

At 4 Cats, there are many art workshops where kids can create something special. They can create their own Van Gogh-inspired painting with acrylic paint on stretched canvas, or an abstract paint-splatter piece in the Paint Splatter Room, inspired by Jackson Pollock. Paint creations aren't the only art form offered at 4 Cats. They also offer Polymer Clay workshops, where students create their own clay creature creations. To find a location near you in Ontario, Quebec, British Columbia, Alberta, Nova Scotia, or Saskatchewan, visit www.4cats.com.

Arts Commons

Arts Commons, located in the heart of Calgary's Cultural District in the downtown core, is one of Canada's largest and most vibrant arts centres. They offer educational programs for teachers and students taught by professional artists and art educators. Recommended for grades K-12, One Day Arts School is a hands-on workshop where students learn through drama, dance, music, art, and multimedia. To learn more, visit www.artsccommons.ca.

Audain Art Museum

Located in Whistler, British Columbia, the Audain Art Museum aims to engage students with historical and contemporary art from the province. They offer guided programs in abstracted landscapes, copper, cedar, and wool creations, and costume design, among others. In these programs, students have the opportunity to observe, reflect upon, and discuss the art form, and then express themselves in creating an original piece. For more information, check out www.audainartmuseum.com.

Harbourfront Centre

The Harbourfront Centre in Toronto offers a variety of workshops for students of all ages. These include workshops of acrylic and watercolour painting, printmaking, colour explorations, textile arts, urban art, and clay creations, including vessels, masks, and portraits. Each program connects to different curriculum areas. In the Clay Masks Workshop, for example, K-12 students can explore traditions across cultures, focusing on Indigenous masks from Canada. They can also explore hand building techniques involved in creating a sculptural piece. More info at www.harbourfrontcentre.com/schoolvisits.

Leigh Square Community Arts Village

The Leigh Square Community Arts Village in Port Coquitlam offers arts field trips for students of all ages. Students in grades K-2 can explore the world of children's book author Eric Carle, known for his famous books like *The Very Hungry Caterpillar*, *The Grouchy Lady Bug*, and *The Mixed Up Chameleon*. Students will gain an understanding of Carle's watercolour techniques, textural effects, and collage methods. Students can then get hands-on as they recreate Carle's famous pop up books. Other workshops offered include sculpturing, clay creations, fiber fusion, and Aboriginal art. To explore the workshops, go to www.portcoquitlam.ca/Recreation_and_Culture/Leigh_Square_Community_Arts_Village.htm.

Ross Creek Centre for the Arts

Located in Nova Scotia, the Ross Creek Centre for the Arts offers various visual arts programs. Programs include, painting and drawing that teaches students about line, texture, and colour; sculpture, where students can create environmental art using found materials; and mixed-media collage, where students explore social issues and identity, Aboriginal art, and self-portraiture. Shadow Puppets, another program, focuses on design, crafting, and storytelling, is one of the most requested Ross Creek workshops. To learn more, visit www.artscentre.ca.



eCYBERMISSION
ACCEPT THE CHALLENGE



**HELP BUILD
STUDENTS' INTEREST
IN STEM WITH
eCYBERMISSION
IN YOUR CLASSROOM**

eCYBERMISSION is a web-based STEM competition, free to students in grades 6-9.

Volunteer as a Virtual Judge

Registration deadline for
volunteers is
February 22, 2017

WWW.ECYBERMISSION.COM

Administered by

