



# VIEW

[www.bctea.org](http://www.bctea.org)

---

The Journal of The British Columbia Technology Education Association  
Spring 2014



Restoration of an ultra rare Canadian-built 1933  
McLaughlin Buick Series 80 Victoria Coupe



BCTEA is a Provincial Specialist Association of the British Columbia Teachers Federation.

## BCTEA Executive

Mike Howard  
President  
Revelstoke Secondary School  
301 10th St E, Revelstoke  
Bag 5100 Revelstoke B.C. V0E 2S0  
School: 250-837-2173 Fax: 250-837-7164  
Email: mhoward@telus.net

Martin Lim  
Vice-president  
Fraser Heights Secondary School  
16060 108 Avenue, Surrey, B.C. V4N 1M1  
School: 604-582-9831 Fax: 604-582-9268  
Email: lim\_m@surreyschools.ca

Travis Burroughs  
Treasurer  
Enver Creek Secondary School  
14505-84 Avenue, Surrey, B.C. V3S 8X2  
School: 604-543-8149 Fax: 604-543-9762  
Email: burroughs\_t@surreyschools.ca

Allan Byres  
Secretary  
McMath Secondary School  
4251 Garry Street, Richmond, BC V7E 2T9  
School: 604-718-4050 Fax: 604-718-4051  
Email: AByres@sd38.bc.ca

Luc Ouellet  
Member At Large - Marketing Member Liason  
Ballenas Secondary School  
135 North Pym Street, Parksville, BC V9P 2H4  
School: 250-248-5721 ext 2203 Fax: 250-954-1531  
Email: louellet@sd69.bc.ca

Bryan Barranti  
Member At Large - Conference Registrar  
Dr Kearney Middle School  
10723 92 St, Fort St John, BC V1J 3J4  
School: 250-785-8378 Fax: 250-785-1678  
Email: radarfunk@msn.com

Paul Boscarior  
Communications: VIEW Editor & Webmaster  
510 Observatory St.  
Nelson V1L 48  
Phone: 250-354-9693 Fax: 250-352-9181  
Email: bosco30@telus.net

## Table of Contents

President's Message	Page 3
BCTEA Executive Updates	Page 4
Eric Munshaw Honored	Page 5
BCTEA Executive Election Candidates	Page 6
Rebuild Your Shop Class	Page 7
Restoration of 1933 McLaughlin Buick Series Victoria Coupe	Page 8
Mood Lamp Project	Page 10
BCIT TTED Happenings	Page 11
Conference 2013 Review	Page 12
SkillsBC 20th Provincial Championships	Page 18
Conference 2013 Vendors	Page 19
Student WorkSafe 10-12 Resource Sample	Page 22
Alive After Five Safety Resource	Page 26
Conference 2014 Information	Page 30

## Editor's Note:

*by Paul Boscarior*

The VIEW magazine gladly accepts articles, book, tool/equipment or resource reviews, project plans & ideas and other information related to Technology Education. Don't be shy, share your ideas, opinions and more. This publication needs your input and support in order to make it relevant and current for BCTEA members. All correspondence may be sent to [info@bctea.org](mailto:info@bctea.org)



I would also like members to provide input regarding the BCTEA website: [www.bctea.org](http://www.bctea.org) Again you may submit project ideas, procedure/work sheets that can be shared with your colleagues. Information relating to retirements and class groups are also welcome!

### BCTEA Listserve

If you are interested in joining the BCTEA listserve, please use the link below and follow the directions.

<http://bctf.ca/cgi-bin/maillinglistsub.pl?Class=psa>

### BCTEA Membership Online

You will now be able to easily and quickly join, renew, and purchase your BCTEA membership on the BCTF website.

Use the following link to access the online membership registration:

<https://www.bctf.ca/psa/join.aspx>

# President's Message



I must applaud Vicki Schenk on a successful conference in Squamish. For those that have not had the opportunity to

host the conference, it is a lot of work for a committee; but for one person to take it on is truly amazing! It was good to see many new workshops along with many familiar faces. We need that constant influx of new ideas if we are to maintain and grow as an association.

I am also pleased to announce that Gladstone Secondary School in Vancouver will be hosting the 2014 conference. Many thanks to Todd Ablett for taking on the role of conference chair. We, the executive, look forward to working with Todd's group to present another great conference. Todd and his committee are interested in hearing from the membership about the types of workshops people would like to see and will do their best to meet these needs.

The website is being updated with new conference information as we get it and will include all the forms to present, show or help at the conference.

The start of 2014 has been quieter than it has been for the last couple, I did have the opportunity to have several interviews on Global TV, CKNW radio, CBC radio, the TYEE and the Globe and Mail for a couple of interviews. It is always interesting to see how they try to slant the interview to the flavour of the day.

In the end these interviews do help us with that recognition that all of you desire as well as getting our message out to the public on the importance of supporting our programs.

The BC Construction Association's grant program is well under way. Several hundred thousand dollars have already been raised and more to come. This has been a significant amount of work by many people and we need to thank them all. Hopefully they will be attending our conference in the fall and we can show our gratitude to them

there.

There are also some meetings occurring with different ministries that we need to be involved with, I am hoping to be able to involve as many teachers as possible to participate in these meetings. Please watch the website and Listserv for more details. Not on the Listserv, now is a good time to get on, go to:

[www.bctf.ca/cgi-bin/maillinglistsub.pl?Class=psa](http://www.bctf.ca/cgi-bin/maillinglistsub.pl?Class=psa)

I must now recognize Eric Munshaw and all the other individuals that are retiring

as people. By sharing our knowledge with others we are making better teachers for the next generation of students.

Spring is here now and the end of another school year is fast approaching, please remember to take some time for yourself and others that are important to you. Next year will be here and we will be busy with our normal routines.

On a personal note I have had a setback with my health shortly after the conference and so Martin Lim has been filling in as president of the BCCTE. In that capacity he

has attended BCTF meetings and most other meetings that have required representation of the BCCTE. I would like to thank Martin and the other members for their help and understanding during this time, but at this time I must resign my position as president so that I can focus on getting better.

It truly has been an honour representing the BCCTE at all the functions that I have been able to attend. I will hopefully be able

to attend the annual conference this fall and look forward to seeing and talking to you.

“By sharing our knowledge with others we are making better teachers for the next generation of students.”

or leaving the profession. Without your knowledge, desire, work ethic, heart and your unselfish commitment to teaching Technology Education we would not grow

For:

- The latest news
- Projects
- Videos
- Interviews
- Software
- Pro-D
- Inspiration

Follow BCCTE @  
[www.facebook.com/BCTechEdAssoc](http://www.facebook.com/BCTechEdAssoc)

# Executive Changes

## New Conference Registrar - Bryan Barranti

**A**fter graduating from Pitt Meadows Secondary School, Bryan achieved early completion with honours and job placement from the Architectural and Structural Drafting certificate program at BCIT back in 1992. Working for a structural steel company, he soon realized his calling for education and went back to university for his Bachelor of Arts degree from SFU in 1999 and then his Bachelor of Education degree from UBC, achieving his full teaching certificate in 2001.



Bryan embarked his teaching career first in Vernon where he primarily taught Drafting and Information Technology, as well as becoming Woodshop Supervisor and running Woodwork classes out of the Vernon Community Arts Center. After five years in Vernon, he relocated up north to Fort St. John where he has been teaching Woodwork, Drafting, Information Technology, Yearbook and Math at Dr. Kearney Middle School for the past nine years.

Being in the north, Bryan has taken on more roles within the union side of teaching. He is currently the Peace River North Teacher Association/BCTF Local Representative. At his school, Bryan is the staff rep, Health and Safety representative, and department head for Elective teachers. Bryan is also president of the North Peace Technology Educators Association.

Playing these active union roles has brought attention within the BCTEA where Bryan now holds a Member At Large position as Conference Registrar.

Outside of his career, Bryan enjoys many hobbies and activities. Throughout the mid 80s and well into the new Millennium, Bryan was regularly seen and recognized snowboarding on the coast mountains, being among the first to bring snowboarding to BC mountains. His love for woodworking and the trades is reflected in his countless home renovation projects. He loves to always have a few projects on the go.

Bryan has a great love for the outdoors as he spends much time camping, hiking and mountain biking across BC, Washington State and Oregon. His love for music can heard throughout his school shop as he continues to educate today's youth in what good music actually is!

## Outgoing Conference Registrar - Randy Grey

**R**andy Grey was appointed to the position of Member at Large - Conference Registrar in 2008. At that time the BCTEA was transforming from a



paper based conference registration process to an online process. He has evolved the process to the point it is at today whereby it is all completed online. He was more than happy to see the end of faxed in registrations and processing cheques. This new process has had its growing pains but Randy has persevered and fine tuned it for delegates to easily register and pay for the annual conference.

Randy is now turning his focus to his position as Career Programs Coordinator in School District 71 Comox Valley.

His passion for trades and Technology Education are evidenced by the strength of these programs in his district.

His involvement with the BCTEA includes being a conference presenter and as conference chair for the 2002 conference at GP Vanier in Courtenay.

The BCTEA would like to thank Randy for his years of dedication to the BCTEA and to the promotion and development of Technology Education in BC. We wish him all the best in his future.

## BCTEA Interim President

**A**s Interim President, I would first like to take this time on behalf of the Executive, and our members to wish Mike Howard a quick recovery, and that we are all thinking of you, and hoping for the best. I would also like to take a moment to tell you a bit about myself. I have been a shop teacher in the Surrey School District for more than twenty years. Currently my assignment is Woodwork, Career Education, and a District Helping Teacher. I am fortunate to work with excellent Department members at Fraser Heights Secondary. Our



shop area at the school is currently under renovation, as we are converting two classrooms into a woodshop. It has been another fun experience, to work again with contractors and suppliers as we set up the new shop. It has been fourteen years, but seems like yesterday that we were planning and opening the new school.

While Mike has been recovering, I have attended the PSA meetings in Vancouver. The other members of the Executive and I will continue to work on building our relationships with our partners, ASTTBC, ITA, and Skills Canada BC. We will continue working with the BC Construction Association Foundation, assisting them where possible, with their Project Shop Class initiative to rebuild and refit BC school shops.

The executive will continue to work and assist Todd Ablett and his Gladstone Secondary School team with the planning of the BCTEA Conference 2014.

It was great to see and talk with many of you at the Skills Canada Provincial Contest in April. Congratulations to you and your students heading off to Toronto for Nationals in June. Best of luck to all.

There are just a couple of months left in this school year. Summer break is around the corner. Please feel free to contact me with questions and comments. If you're doing something exciting in your shop, please let me know.

Will stay in touch.

Mikey, Get Well Soon !!

Martin Lim



# Eric Munshaw – A Tech Teacher's Career and Life

In 1981 Eric was hired on a temporary basis at Garibaldi Secondary as a shop teacher in Maple Ridge. This position became permanent and he taught a range of courses including cabinetry, house construction, cedar-strip canoe building, and drafting. Having a degree in Civil Engineering in addition to being a journeyman cabinetmaker, he often taught math and science courses as well.

His construction classes built portables for the school district as well as small outbuildings (garden sheds, etc.) for the public. His canoe building classes would work in teams to complete canoes and the students with the highest class marks at the end of the year would have first pick of the fleet to take home...and so on down the list of students.

Eric coached a number of school teams at Garibaldi (volleyball, etc.) but his favourite was the canoe club which refined their paddling techniques on a local pond at early morning sessions. He also co-led winter overnight outdoor education field trips.

Eric's dedication to his teaching was exemplified by the hour-long drive from Chilliwack to Maple Ridge each day, rain, snow, or shine. Of course, this was before the days of emailed school closures and with sketchy radio reception at his home in the Chilliwack River Valley, and usually leaving at 5:30 in the morning, he arrived at Garibaldi on more than one occasion, having driven 1 ½ hours or more to find the school closed for a snow day.

In 1992 Eric took a 4 month leave of absence to build his own home. He designed, framed, wired, plumbed, cut a maple tree on the property to make the hardwood floors, and made the doors, windows, cabinets and furniture. His house recently underwent an energy efficiency inspection and he was lauded for the attention paid to details of energy conservation and innovation.

In 1995, Mt. Slesse Middle School in Chilliwack was built with the intention of incorporating a new middle school philosophy. Eric was hired and had the opportunity to make input regarding the design of both the classroom/shop facility and courses in the new technology department. Rather than introduce



**Award:** Eric receives the 2013 BCTEA Outstanding Technology Education Teacher award from BCTEA President Mike Howard

students to individual disciplines within technology such as woodworking or metal, he introduces a variety of materials and technologies while encouraging creativity through design.

In 1997 Eric took another leave to coach the Canadian whitewater kayak team at the World Championships in Brazil. This surprised his Principal, who was unaware of Eric's "other life" first as an international whitewater kayak competitor (including being a competitor in the 1972 Munich Olympics) and then as a coach of the National team. Eric's participation in international sport spanned 25 years.

***"Eric has always been an 'outside the box' type of teacher..."***

Eric has always been an "outside the box" type of teacher and as such, his students have built an electric car, a solar powered bicycle and various robotics projects which often found his middle

school students competing (and doing very well) against high school aged students at electric car and robotics competitions. Skills Canada, stage construction for school theatre, and wood duck nesting box construction were some classroom activities that spilled over after hours. Eric has often taken students, in winter, in a canoe to install or clean out wood duck boxes around the Chilliwack River Valley. In 2008 he was the recipient of a Prime Minister's award for Excellence in Teaching. He has been the primary first aid attendant for his school (with a level 3 certificate) for many years and is always enthusiastic to take students on hikes to mountain lakes on school activity days.

His most proud moments are three-fold. He always enjoys presenting the year-end technology award to the most deserving

graduating student. This has on occasion been a student with special needs or who has in other aspects of school life been less than outstanding. He has always gone to great lengths to help each student reach his or her full potential and perhaps identify hidden strengths. He has also enjoyed seeing so many of his students go on to win medals in Skills Canada competitions in higher grades and also enjoys attending the annual Chilliwack School District apprenticeship banquets where many of his former students are awarded scholarships.

More recently, Eric has collaborated with others from BCTEA to formulate the best practices guide for Shop teachers in B.C. and presented it to the Minister of Education.

Eric's latest project is an icloud program of his current curriculum of which he presented a sample at the October 2013 BCTEA conference in Squamish.

*submitted by: Nian Zhu*

## **Editor's note.**

I have known Eric for 25 years having first met him when we both taught in Maple Ridge. While working in different schools we collaborated on some local curriculum development and then on the Technology 8-10 IRP. Eric was a key player in the organization of the 1994 & 1996 BCTEA conferences that took place in Maple Ridge and of the 2007 conference in Chilliwack. Eric has always been a contributing member of the BCTEA; having presented at numerous conferences on topics ranging from bowl turning to middle school technology. Further to his presentations, he would share his resources with anyone who asked. Samples of this can be seen on the BCTEA website in the resources area.

Following stripping of contract language on class size, Eric became more passionate about how it affected safety. It was significant enough that he resigned his teaching position in January 2014. A very loud statement from a quiet man.

# Executive Elections 2014

**E**ach year at the BCTEA AGM there are elections for several executive positions. Each position is a two year term, unless a position becomes vacant part way through a term. At this year's conference there will be elections for the position of President, Vice-president (1 year term), Member at Large - Vendor Liaison and Communications Officer.

The President is responsible for coordinating the activities of the BCTEA. This individual is the official spokesperson for the BCTEA and represents its interests at a variety of

meetings including the BCTF's Provincial Specialists Association Council and with outside organizations.

The Vice-president is to act as the president's substitute at any time should it be necessary. This person may eventually take on the position of president. They must know the routines and background of the association. Responsibilities for the Marketing Manager include communicating with vendors and recruiting new ones associated with the BCTEA. The Marketing Manager also has to liaise with the company responsible for

tradeshow setup at the conference.

The Communications Officer is responsible for maintaining and editing the BCTEA website, moderating the listserve and creating the VIEW journal. Other areas likely to grow include the development of social media to promote the BCTEA.

For more information on these positions, check out [www.bctea.org/executive-positions](http://www.bctea.org/executive-positions)

Candidates for the position of President, Member At Large - Vendor Liaison and Communications are listed below.

## President - Martin Lim

I have been a shop teacher in Surrey School District for 21 years.

During my career I have taught all shop related courses at the junior & senior level, except automotive.

I have helped with



planning and design of new Surrey shops since 1998 and have opened and set up two new Surrey school shop facilities.

Currently have a part time (.25) position as District Helping Teacher – Technology. I assist teachers with lesson planning, am a liaison between Corporate Services Dept, and teachers re: new and replacement equipment purchases and lead District Meetings and District Pro-D planning.

Skills Canada BC Volunteer since 1996 - Regional Contest Tech Chair, and currently

am the Lower Fraser Valley Regional Coordinator.

My LSA involvement include current President of Surrey Technology LSA, and I have been an Executive member of LSA since 1998.

At the provincial level I am the Interim President of BCTEA. Involvement as an Executive Member of BCTEA since 2008 include Secretary, Treasurer and Vice president.

## Member At Large - Vendors

### Luc Oullet

I have been a Technology Education teacher since the mid-1980s, the majority of my experience has been teaching Power Mechanics and Automotive. Industry experience as an Aircraft



Maintenance Engineer "R" and a Red Seal Automotive Tech have influenced my approach to teaching technology education programs. There is a strong emphasis on student professionalism as most students will be working on customer equipment and vehicles. My experience has been that real, relevant and recognized work requires students to "step up" and they do.

As a member of the BCTEA executive my objective is to work towards the development of technology programs that provide students with pre-requisite

credits to enter into various post-secondary technical programs. This will require we are provided with the facilities, tools and appropriate class size/composition rates, much of which has been documented in the "Best Practices Guide" allowing us to expose students to a relevant view of what modern industry has to offer. When conditions are appropriate there is no better place for students to learn or teachers to teach than in technology education programs.

## Communications

### Paul Boscariol

I am completing my 32nd year of teaching. During that time I have taught in six school districts and nine different schools around the province. The experience was in both urban and rural school settings



where I taught every technology area except electronics and automotive. In addition I have had extensive experience in other curricular areas, most recently in Media Arts.

My involvement in the BCTEA began back in 1994 when I co-chaired the annual BCTEA conference at Thomas Haney in Maple Ridge. Following the conference work, I became involved in the BCTEA executive as a Member At Large and followed that up with 2nd Vice-President (this position no longer exists), then first Vice-President. I

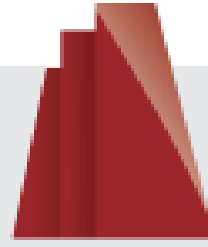
spent six years as president, the first being the year of the 2005 strike. Since stepping down as president I have been working as the Communications person, responsible for the website, listserv and VIEW journal. I have been part of the Provincial Specialist Association Council as BCTEA president and am currently on the Professional Issues Advisory Council (PIAC) with the BCTF. Last year, for a change, I ran and was elected as Local President of the Nelson District Teachers' Association, a position that I will be continuing for the next year.

## Vice-president - vacant

This position is vacant as Martin has put his name forward for president. Another Executive position may become vacant if

a current Executive member decides to run for the Vice-president role. Come to the AGM if you want to run for a position.

# REBUILD YOUR HIGH SCHOOL SHOP CLASS



**CONSTRUCTION  
FOUNDATION OF BC**

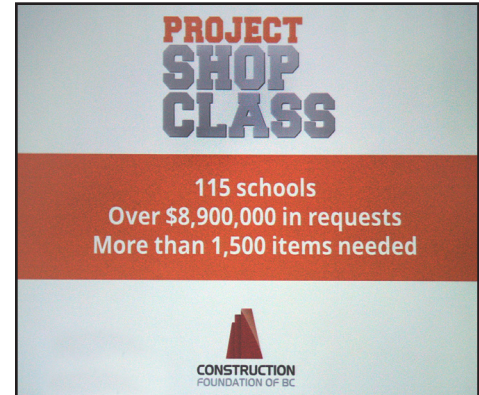
**T**he Construction Foundation of BC received more than \$294,000 for its Project Shop Class fundraising campaign at a kick-off dinner in Vancouver in February. Attendees included owners of many BC construction firms, senior executives from the automotive, oil, and gas sectors, and the Boards of Directors for all five of BC's Construction Associations. The Honourable Shirley Bond, Minister of Jobs, Tourism, and Skills Training, was also in attendance, along with a handful of local shop teachers who came out to hear if their school had been chosen as one of the finalists.

The Project Shop Class launch dinner was hosted by the BC Construction Association to provide a platform for introducing the campaign and announcing the 5-10 schools who would receive funding. Out of 89 wish lists representing 115 schools, the Foundation had planned to select up to 10 schools to support. However, BCCA President Manley McLachlan surprised the audience by revealing that the Foundation had decided not to turn any school away:

Project Shop Class has accepted all 115 schools who provided their wish list of needs, and will work to find donors to help every school. In total schools are seeking close to \$9 million in financial support.

"In looking through the applications it became clear that every school was committed, had a true need, and deserved to receive support," said McLachlan. "And we certainly know the demand is there in the sector for more skilled tradespeople. The Project Shop Class website enables anyone in the province to support any school for any amount. Tonight, we're thrilled to see industry step up in such a big way to get the campaign started."

The most significant contribution of the evening came from Janet Holder on behalf of the Northern Gateway Project. Born and raised in Prince George, Holder believes in community. "Project Shop Class is a real-life way to make an immediate positive difference and to support the skilled workers that BC needs to meet its full economic potential," said Holder.



"At Northern Gateway, we strongly believe training programs like this one help to give students the skills to last a lifetime. As a proud resident of Prince George, I am especially pleased that our contribution of \$225,000 will go to support the schools in Northern BC. I'd like to invite others to offer their support for this great project as well."

Donations were also received from Houle Electric, Mott Electrical, Concert Properties and the BC Construction Association.



Dave DePieri, SD 37, Abigail Fulton, Const. Foundation of BC, Martin Lim, BCTEA VP & Paul Boscriol, BCTEA Communications

"We have heard clearly from BC students, parents, teachers, and construction employers that something needs to be done to improve the training experience in high schools.

This initiative aligns perfectly with the Foundation's commitment to increasing awareness of the opportunities in our sector and helping to train the journeypersons BC needs for tomorrow."

- Abigail Fulton, Executive Director  
Construction Foundation of BC



**P**eter Trant takes his time when he restores old cars. The best example is his ultra rare Canadian-built 1933 McLaughlin Buick Series 80 Victoria coupe. He paid \$300 for the dilapidated 1933 car when it was 33 years old in 1966, took it apart for restoration in 1979 and finished it 33 years later.

Peter restored other cars during those years and spent 44 years teaching future shop teachers at the British Columbia Institute of Technology. He was originally going to do a quick restoration on the Buick to drive it across Canada on a vintage car tour in 1980. But he took his 1947 Lincoln Continental convertible instead.

When he disassembled the car, he found the floorboard under the front seats had been imprinted at the factory with Not For Production. He has never heard of another 1933 McLaughlin Buick Series 80 Victoria coupe and this could have been a prototype car built by General Motors of Canada using parts shipped from the U.S. All he knows of the history of the car is that it was reputed to have been once owned by a past mayor of Surrey.

He really got going on the car again about ten years ago and made the decision that the McLaughlin Buick deserved a top quality restoration. Although the body was good and the car was basically complete, the fabric roof insert had caved in and water had rotted much of the wood and ruined the interior.

"The more I got into it, the fussier I got. I decided to make it as good as I could," he says looking back on the thousands of hours spent renewing every part of the car.



## How to pull off a 'perfect' restoration on your classic car

He offers three reasons for the obsessive restoration: It was the first vintage car that he bought, it was made in Canada and it is a very rare car, possibly being the only McLaughlin Buick like it.

Colonel Same McLaughlin started General Motors of Canada building Chevrolets and Buick cars in his home town of Oshawa. He imported parts from General Motors in the U.S. to build his McLaughlin Buick automobiles but they were very different from their U.S. cousins with a host of unique and deluxe features.

Peter did all the restoration work himself with the exception of the chrome plating and the final painting. He says he went at the restoration 'backwards', starting with the 'jewelry' which included meticulously restoring the lights and hundreds of other chrome plated parts with each piece

then being sent out for re-chroming and carefully put away for when the car would be reassembled.

Peter spent one winter doing the woodwork which was complicated because, at the factory, the wood structure was made before the sheet metal body panels were fastened on. Using white oak, he made the original type of mortise and tenon and splined joints while replacing about 80 per cent of the internal wooden framework that reinforces the body built by Fisher for GM.

Next came the work on the body that was originally built with the panels joined over the inner wood framework. At the factory, where body panels were to be joined, workers cut grooves in the wood to put asbestos over the wood so it wouldn't







**Finished:** Peter Trant proudly stands next to his meticulously restored 1933 McLaughlin Buick Series 80 Victoria Coupe

catch fire when the panels were welded together. The welded seams were then filled with molten lead to make the body completely smooth.

Then Peter did the frame with all new or restored parts and rebuilt the complete running gear himself including

borrowed the upholsterer's sewing machine and went to work. "I understand material such as wood and metal and found that upholstery fabric is just another material," he says. "I watched my mother use a sewing machine so I thought I could do it too."

It wasn't as simple as he thought. Each seat was filled with over 80 cotton bags containing different sizes of coil springs. Peter took everything apart, individually sandblasted and painted every spring, sewed them into new cotton bags and then painstakingly reassembled them into the



plated Harrison heater that was a factory option for his car.

The car is painted two shades of royal maroon and has luxury touches like dual side mounted spare tires with metal covers, a fold down trunk rack, factory back up lights, a clock in the glove box door and an original radio that is turned on with a special key.

Peter Trant's restored 1933 McLaughlin Buick Series 80 Victoria coupe was honoured at Last Fall's Luxury & Supercar Weekend Concours d'Elegance winning first place among the classics and the This Car Matters award for excellence

Peter offers this advice for those who may embark on a complete restoration of a classic car: Spend time looking at whatever aspect of the project you plan to tackle, study it carefully, look for clues as to how the pieces fit and work together until you are able to make sense of it.

Take lots of pictures before and during disassembly because you will never remember all the details later on. Do the absolute best job you can on every part because errors have a habit of accumulating. Don't throw anything out until you are absolutely finished. Often great authenticity clues exist amongst the worn and shabby parts you are remaking or replacing.

He has driven the 1933 McLaughlin Buick just 10 kilometers to the show at Vancouver's VanDusen Botanical Garden. When asked what he will now do with the car, he says he really doesn't know. He is just getting started on the complete restoration of the 1919 Pierce Arrow limousine that he bought in New York many years ago.

*Alyn Edwards is a classic car enthusiast and partner in Peak Communicators, a Vancouver-based public relations company. [aedwards@peakco.com](mailto:aedwards@peakco.com)*



machining all the parts. Every part was restored the way it was put in the car originally. Even unseen brake parts were copper or cadmium plated just the way they were originally, even though no one will ever see them. He even made the 130 centimeter long (51 inch) muffler entirely from stainless steel using original factory drawings and dimensions from the shop manual.

The final touch was the upholstery. Peter had a skilled upholsterer lined up to do the work but, before the car was ready, he retired from the business. Peter's answer to that was to do all the upholstery work himself. He acquired the original upholstery material,

seat frames.

He had to make the stitched embossed door panels and the special metal nailing strips that hold the panels onto the doors. And he made a mold to recreate the rubber mat that is part of the front floor carpet and seals the floor shift for the transmission. He made the visors and assist straps and even had the tassels for the pulls for the rear window blinds recreated by copying one that was with the car.

He got his information from 1933 sales brochures

he had collected over the years and photos in an original shop manual.

The hardest piece to find was the last piece: An original unrestored chrome-

***"The more I got into it, the fussier I got. I decided to make it as good as I could."***

# Mood Lamp Project

*Written by: Allan Byres and Daniel P.*

This is a project I did with my Industrial design class in the second term of the year. I saw a tea light holder made in a similar way at a craft fair and decided to adapt it to my needs. I wanted a multidisciplinary project that taught a few different skills and exposed students to a variety of materials. The benefits of this were that I have a general purpose shop and this spread the students around as they worked on various parts of the project. I adapted the tea light holder into a Mood which lamp changes colours and is really quite attractive.

It involves three parts:

- 1) A can cut out with a plasma cutter or an acetylene torch.
- (free material here!!)
- 2) A base of some sort, I used wood turned on the lathe.
- 3) Lastly the electronics for the LED's



The can is cut in order to allow as much light as possible to be visible but yet still hold together. I ask each student to bring in two cans so that they have a practice one and

then can create a “good” copy for their project. This goes reasonably quickly and students can produce these in short order. I always encourage the students to plan this out using a felt pen showing the areas they want to remove and also to allow the discussion about leaving small connection points so that they don't blow out an entire side of the can. Imagine cutting out the letter B, if we

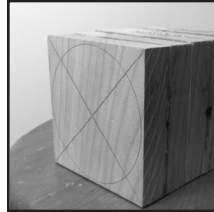
# B



didn't leave white space we would lose the internal part of the letter. I lined the inside of the can with a piece of tracing paper to act as a diffuser.

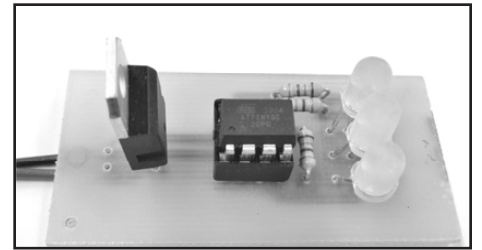
The wood base is a bit slower, I have three lathes and so only three students can access these at a time. Having said that it takes a bit of preparation to get ready to use the lathe and it allows me to observe students as they use jointers and saws as they prepare their blanks to be turned. I typically have students cut a piece of wood long enough to get 4 squares. The wood is jointed and planed and cut to squares on the band saw. There is a lesson required on glue up so that the blank does not have gaps.

I use a face plate attached to the wood after rough cutting it into the largest circle possible. Turn it into a cylinder with a tenon on it. The tenon should just fit into the inside of the can. Add a profile, sand and finish. The last step is to hollow out the inside to create a cavity to house a circuit board and leave about 1/2" at the tenon end. I do this using Jorgenson clamps and a large diameter Forstner drill bit. Again this exposes students to another machine and setup.



The Electronics is possibly the most intimidating part of this project if you haven't used an Arduino or RGB LED's. But it isn't as hard as it seems! One of my students, Daniel, has written out the instructions and kindly shared them as a google document and also as an Instructable. (See links at the end of this article) I worked out the Electronics first. The circuit board is a simple design laid out in Eagle. I taught the students to solder using a solder practice board, to read schematic symbols, understand the resistor colour codes and introduced the microcontroller through videos and a worksheet. Then we made the circuit boards, stuffed and

soldered them. I programmed the ATtiny 85 using an Arduino UNO and gave them to the class once the soldered up boards were completed and checked. I purchased 300 RGB LED's online for about \$25.00. Try to get the diffused LED's or else have the students lightly sand the lens with some fine sandpaper to create diffused LED's.



So far I have found this to be a reasonably simple project which has been a great introduction to a great many skills for inexperienced students. In my shop integrating the materials worked well.

Clearly there are alternatives to this project, such as just sticking with the tea light holders and designing some other form of holder to hold all three in either wood or metal. The electronics is often a lesson in using RGB LED's and pulse width modulation. This can also be expanded into using transistors to power LED's and LED cubes.

Follow the QR code or the URL to get to the Google document about the Electronics part of this project:  
<http://tiny.cc/5bdgbx>



For more info contact me at:  
[abyres@sd38.bc.ca](mailto:abyres@sd38.bc.ca)



# BCIT TTED Happenings

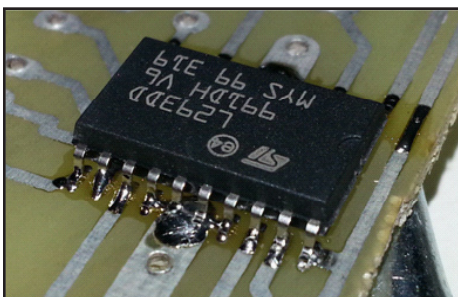
## Mini-Sumo:

### New and Improved for 2014!

The mini-sumo robot project has been a staple of second-year electronics in the TTED program for many years. The competition focuses around a tethered mini-sumo robot, suitable for use with grade 9 and 10 students, and a microcontroller controlled mini-sumo suitable for use with senior students. The competition for King of the Sumos in the tethered category this year was claimed by Michael Karr, who, after filing the leading edge of his robot smooth, took the additional step



of smoothing it out using the sharpening stones in the wood shop. The most creative robot was James Girouard's ode to Dr. Who. The autonomous mini-sumo robots have been completely revised and are now 3D printed in bio-degradable PLA plastic, and use an Arduino Uno for control. The new circuit board keeps the traditional edge detectors, rangefinder, and IR remote receiver, but adds the ability for Bluetooth communications (for control from an Android phone or tablet) and introduces students to surface-mount soldering. For details on the new design, contact Jason Brett ([jbrett@bcit.ca](mailto:jbrett@bcit.ca)).



BC's representatives to the 2014 VEX Robotics Competition World Championships, Anaheim California

## BC VEX Robotics Championships 2014

The VEX Robotics competition continues to grow in popularity in BC High Schools. This year over 100 teams from BC schools took part in qualifying competitions in Surrey, Richmond, Courtenay, Vancouver and Seattle. Following these competitions the top 40 teams came together at Gladstone Secondary in February to select the 10 teams that would represent B.C. at the VEX Robotics World Championships in April.

The BC team consists of:

- Teams 2A, 2D, 2K and 2Z from Gladstone Secondary in Vancouver
- Team 7793R from Hamber Secondary in Vancouver
- Team 1136A from Isfeld Secondary in Courtenay
- Team 4549C from Enver Creek

## Secondary in Surrey

- Team 6264 from Shawnigan Lake School
- Team 7842D from North Island Distance Education School, based in Courtenay
- Team 9594M from Collingwood School in North Vancouver

The Shawnigan Lake team had a particularly impressive showing in the Programming Skills challenge, setting the world record of 66 points, the best score recorded by thousands of teams taking part at hundreds of events around the world this season.

VEX teams will have one more chance for local competition this year, at the Pacific Northwest Regional Championship, hosted at BCIT, March 7 and 8. The new VEX game, for 2014/2015, will be announced in April. For more information visit the Pacific Youth Robotics Society website ([www.pyrs.ca](http://www.pyrs.ca)) or contact Jason Brett ([jbrett@bcit.ca](mailto:jbrett@bcit.ca)).

## Tower Cranes: Truss Analysis in Action at BCIT

Problem #5. Nodes in space. Smile and nod. Ahh, memories of the forces and vectors labs and truss analysis from the TTED structures course. We still do all the calculations but are always trying out new ways to put the ideas into practice. After a variety of bridge-building competitions in the past, this year we tried something new with the TTED first year students and challenged them to build a tower crane. Points were awarded based on the height of the crane, the length of the boom and the mass it could support. Students were given limited supplies



and shop time, and challenged to design and build the tallest, longest, strongest, structure they could. Taking top spot with

a height of 3.6m, boom length of 2.2m and supporting a mass of 13.6kg were the "Cranial Surgeons" team of Chris Dalhuisen, Tim Reeves and Marissa Majchrzak. Taking top spot in the "heaviest lift" category and supporting a mass of 70kg were Joel Bron, Calvin Patterson and Mike DeAngelis.

The project could easily be adapted to suit a high school engineering or wood class. Please contact Jason Brett ([jbrett@bcit.ca](mailto:jbrett@bcit.ca)) for a copy of the rules if you are interested.

# Conference 2013

## Howe Sound Secondary School

### Squamish, BC

### District Reps Meeting

For teachers to get access to the site for their students, they must first access the site themselves.

Contact Gareth: [admin@boff.ca](mailto:admin@boff.ca) or Eric Munshaw: [eric\\_munshaw@sd33.bc.ca](mailto:eric_munshaw@sd33.bc.ca)

### Industry Training Authority (ITA) Activity

Erin Johnston, a rep from the ITA discussed several new, as well as existing initiatives that the ITA is supporting. They include:

- Yes 2 It
- trades sampler course
- mentorship program
- update on ACE it and SSA

(52 out of 60 districts have programs)

Many new students have enrolled in SSA, indication of growth in this program. Youth strategy is looking at the younger grades and spark and hold an interest in students between early years and Gr 9 with a try the trades to expose students to trades before they commit to such programs. This follows a funnel effect and it slowly directs a student towards a trade they wanted to work at. This is especially important before they try ACE IT.

Maker Day Pilot Program can be a way to awaken the interest in early years. The ITA in Nov piloted this Maker day activity. This is more about the design solving process rather than a specific trade. Some concerns

were expressed that this initiative isn't linking back to specific trades. Erin responded that the next steps will make this part of a conversation about the link from one to the other.

The Try a Trade and Skills Exploration are hands on experiences for

students so they have a better understanding before committing to ACE IT programs.

In November 2013 the ITA started piloting a mentorship project for students enrolled in either SSA and Ace IT programs. Apprentices need more mentorship and this pilot will link young students with experienced journeypersons. It is especially important to support Gr 12 ACE IT and SSA students as they transition to the post-secondary level. Students will need to self-identify.

Questions arose around if there would be education/training for the mentors and what advantage is there for a potential mentor? Also of concern was around if the mentors

The District Reps meeting is the kick off to the BCTEA annual conference. It provides an opportunity for Tech Ed teachers from around the province to gather and discuss current and past issues affecting their programs. Always part of the agenda on this day are speakers on trends that may be affecting how the programs are developed and run. As always, this stimulates plenty of great discussion amongst those attending. This is an overview of the day's proceedings.

### Superintendent of Careers & Student Transition

Larry Espe, Superintendent of Careers and Student Transitions from the Ministry of Education began his presentation with



a review of his district visits to see what is successfully happening out in the field in Technology Education programs. He saw the full spectrum of

technology education teaching but noticed a lack of partnerships between colleges and districts. More conversations are necessary, especially between interested parties, not all are traditional parties.

When asked the question, what about the kids we are missing?, Larry indicated that significant change in policy and other areas are needed.

Some of the goals Larry highlighted include:

- develop initiatives
- develop metrics to track progress
- show emergent practice
- fund SSA and Ace IT
- increase by 50% the number of grads into trades and technical areas

There is a need to transform secondary education and de-stigmatize trades and technology. Academic doesn't = smart.

Other big T truths in education:

- 8 x 5 timetable
- traditional school timetable
- these are barriers and a crutch to our system
- Planning 10! Are we doing trades justice at this level

- shops are outdated and this is a barrier.
- shop teacher are hard to come by
- transition for red seal teachers is not smooth
- where do the priorities lie in all layers of the school system
- demographics get in the way
- have and have not districts, not all are equal
- money is tight

Larry went on to share a question that needs consideration. "Can you tell me about a time when you were learning and didn't want to stop?" Meaningful education doesn't always happen in the classroom, in fact it most often doesn't, it takes place in a safe venue.

The Ministry is transforming the BC Grad Program and is moving towards one where there is an expectation and an encourager of change. It is time to value human excellence and restore the honour of the trades. Espe went on to ask, "When will what we know change what we do?" We need to start talking to kids earlier.

Espe provided the following books that speak to the value to skills training: *Shop*

*Class for Soulcraft* by Matthew Crawford and *Eat, Move and Sleep* by Tom Rath.

For additional information or to continue the dialogue with Larry Espe, he may be contacted at 778 679 7649, #skills4bc.

### Online Technology Education [tech.boff.ca](http://tech.boff.ca)

Eric Munshaw from Chilliwack presented an outline of a workshop that he was presenting at the conference. It is a free resource which is available online and best of all it does not require any downloads.

Eric explained the resource and how it works, the basic needs to run this and different environments it can work under. To demonstrate the resource he used the wood technology section as an example. It is set up in units and the course develops using images, text and short video clips.





will be screened beyond a criminal record check?

In closing, Erin highlighted some other initiatives around a new communications strategy that is being implemented, merit based scholarships and technical innovative awards. Included were administrative changes to ACE IT and SSA with an update to existing programs.

### Curriculum Development Process

Tim Winkelman from the Ministry of Education outlined the changes in the curriculum. Currently the curriculum focus is from K – 9 while the Gr. 10 – 12 is still under development. Posted curriculae now are science, math and social studies and samples can be found at <https://curriculum.gov.bc.ca>



He showed the math example and explained the layout of it. However it does not map out the details of teaching but rather focuses on core competencies. This is in a draft form and is out to gather feedback.

The Applied Skills K – 9 will be school based maker spaces, however when asked about support, Tim replied that no dollars are being allocated to support these new initiatives, “districts have money”. Delegates present expressed concerns over lack of rigor in the new curriculum.

Contact Stephen Hill with concerns regarding the new curriculum model [Stephen.hill@gov.bc.ca](mailto:Stephen.hill@gov.bc.ca)

The Discover Trades will provide workshops up to the grade 7 level where teachers can expose younger student to some of the trades.

The Skills Exploration 10 – 12 guide will focus on what students can do before they get to ACE it programs, this is an attempt to create a project to expose students to get sampler trade experience. This initiative comes out of the BC Jobs Plan so it will look different than the new curriculum coming out from the Ministry of Education.

The Program Guide: (models) is a 4 credit course, (does not need all 5 components as

listed below)

- Core skills
- Electrical
- Plumbing
- Carpentry
- Local Priority (regionalized, any

ITA certified trade, this is flexible)

This course can be offered at any grade 10, 11 or 12. It is a one-time credit offering only and may not be repeated.

### District Reps Report Out

There were seventeen secondary school reps present, along with two post-secondary student reps and three post-secondary TTED and trades program reps.

The secondary school reps came from the north (Ft. St. John), the Southern Interior, Lower Mainland and Vancouver Island. Each individual had an opportunity to report out on what is happening in Tech Ed in their district. Some common issues raised were around class size and program funding, with some districts reporting that these areas were holding steady for them. Other things reported included an increase in trades awareness programs, ACE-IT & SSA, some new schools & renos to existing facilities, equipment replacement programs and staffing challenges.

The post-secondary students reported on the growth of their cohort as they worked their way through the program. Currently there are twelve students in the program at UBC, with a number of them already holding a



B.Ed. degree. The BCIT program has two solid classes of students and the faculty has stabilized following some recent changes. The UBC-O program is restructuring and is hoping to begin enrolling students in their Technology Trades Teacher program in the near future. They have been working with Okanagan College to provide the trades experience and hope the Central Okanagan School District will become involved in some capacity. The Okanagan College report focused on the need for trades schools and high schools to collaborate more, but recognized that too much work is done in silos. This work requires cooperation between the Ministry of Education and the ministry responsible for post-secondary training.

The District Reps meeting has always been a good source of discussion between teachers and a sharing of ideas. With the range of guest speakers from the Ministry of Education and the post-secondary institutions it is hoped that more dialogue and collaboration will happen.



L-R: Paul Boscarol, Ivor Langley, Rick Wager, Jim Scoten and Randy Schultz

### The Farm - Class of 1979-81

Remnants from the Class of 1979-81 at ‘The Farm’ reunited at this year’s conference in Squamish. The group, albeit a bit older, greyer, heavier, thinner (hair that is) recounted stories of those heady days of

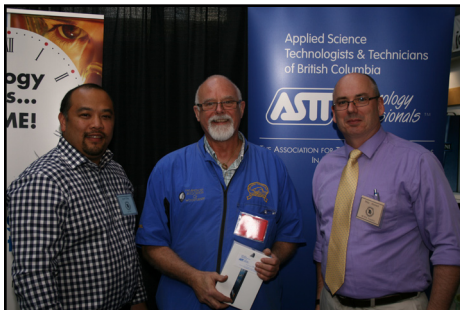
their youth, not ever imagining that 30+ years later they would still be hard at work. Although retirement looms closer for this group, they continue to be active participants in their respective programs and in the provincial Tech Ed scene.

## Conference Draw Winners

The winner of the earlybird registration draw for a Samsung Tablet was Alexandra Howie. Pictured at left is BCTEA President Mike Howard, Andy Fenos from iDesign Solutions, Conference 2013 Co-Sponsor, making the presentation to Alexandra.



The second registration draw was supplied by ASTTBC 2013 Conference Co-Sponsor. The winner was Gregg Parsons (center) with Jason Jung, Applied Science Technologists & Technicians of BC ASTTBC (left) and Mike Howard, BCTEA President (right).



The winner of the first of two Conference 2014 registration and BCTEA membership was Dustin Herbison. Presenting the prize was Mike Howard, BCTEA President.



Stephen MacInnes steps up to receive the second Conference 2014 Registration and BCTEA membership from Mike Howard.



The winner of a 2014 BCTEA Membership was Matthew Julien, accepting the prize from Mike Howard.



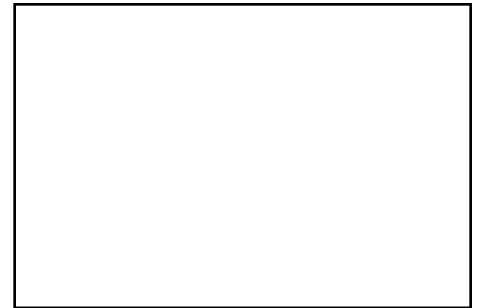
Ben Scoten was the winner of the second BCTEA 2014 Membership. Presenting was Mike Howard.



## WinnerStudent Awards

Top TTED Student: *Ben King*

Left to right: Roger Bortignon, Program Head BCIT TTED, Ben King, Mike Howard, BCTEA President



Vern Fuches Memorial Award (Top Automotive Student): *Michael Myhal*  
No photo available.

## Annual General Meeting

This year's Annual General Meeting was attended by forty members. Prior to the election of executive members, the BCTEA executive each reported out on their work over the past year. President Mike Howard was kept especially busy representing the BCTEA at a variety of meetings from Ministry of Education to post-secondary steering committees. Mike has also had a number of media interviews relating to the challenges many of us are facing regarding over crowded shops and under funding the programs.

The following executive positions were up for election. All the individuals who let their names stand were acclaimed to the positions.

Vice-president: Martin Lim

Secretary: Allan Byers

Treasurer: Travis Burroughs

Member-At-Large- Registrar: Bryan Barranti







# British Columbia Teachers' Federation

100-550 West 6th Avenue, Vancouver, BC V5Z 4P2 • 604-871-2283, 1-800-663-9163 • [www.bctf.ca](http://www.bctf.ca)

A Union of Professionals

BC TECHNOLOGY EDUCATION ASSOCIATION

Y580

## STATEMENT OF RECEIPTS AND DISBURSEMENTS (Note 1) FOR THE YEAR ENDED June 30, 2013

Balance, July 1, 2012 \$ 16,456.67

### Receipts

BCTF grant	5,000.00
Conference surplus outside account	14,000.00
Membership/subscription fees	7,227.92
Interest	194.85
Other	-6,527.82
Conference exhibits/sponsorships	850.00
	<hr/>
	20,744.95

### Disbursements

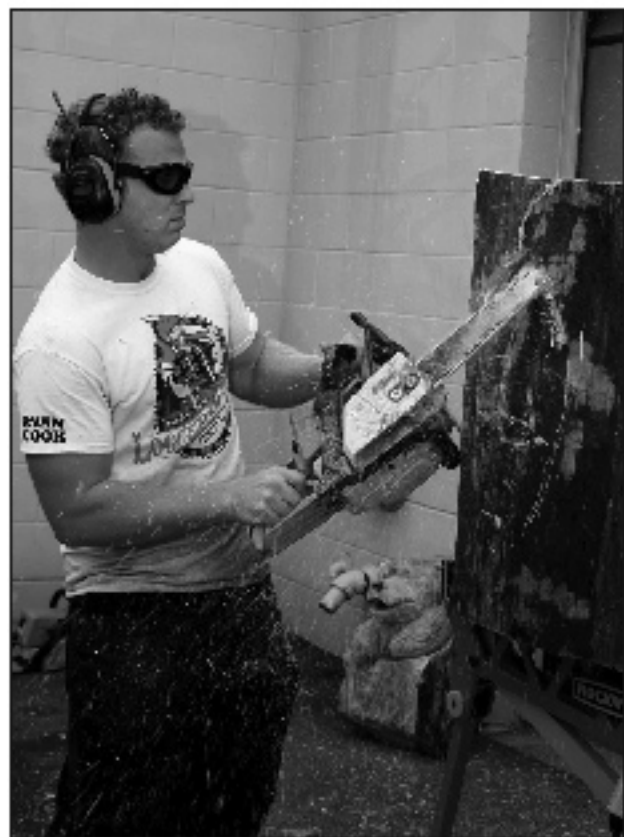
Meeting-executive	5,370.52
Meeting-council	62.00
Meeting-subcommittee	456.00
Meeting-TTOC costs	2,820.26
Meeting-other	4,848.23
Publication-journal	1,320.59
Operating	13.66
Projects	1,948.21
Miscellaneous	676.81
Conference-operating	3,182.68
Conference-committee costs	836.03
	<hr/>
	-21,534.99

Balance, June 30, 2013 \$ 15,666.63

### Notes:

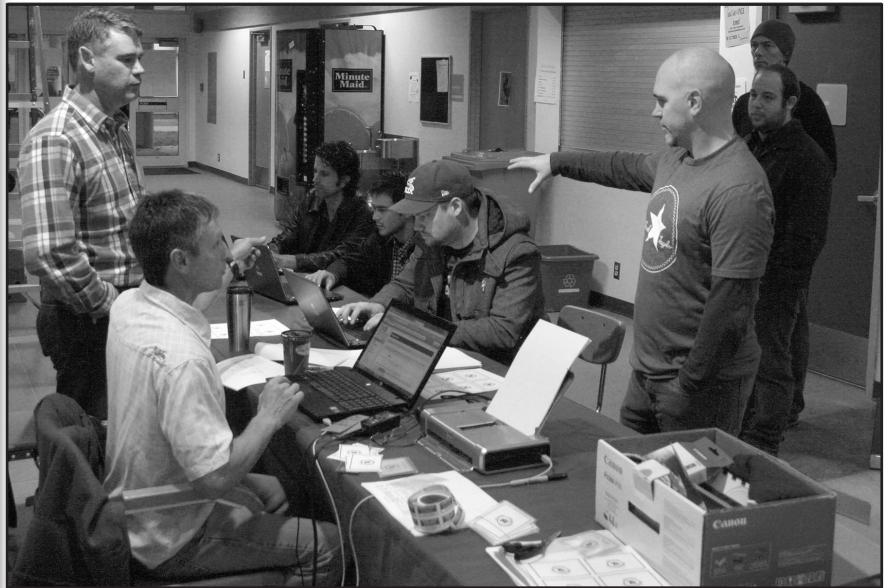
1. This statement reflects only funds held by the BC Teachers' Federation on behalf of the BC Technology Education Association.

# Conf





# Experience 2013





Skills Canada BC hosted its 20th Annual Provincial Skills Challenge on April 9th, 2014 at the TradeX in Abbotsford, BC. The event featured over 600 competitors from across BC vying for a gold medal in one of 53 contest areas including fashion technology, aircraft maintenance, 3D animation, heavy duty mechanics, steam fitting, sheet metal, culinary and so much more. In addition to cheering on their favourite competitors, visiting students had the opportunity to build a birdhouse, fly an airplane in a real training simulator, make a marzipan shape and try 14 other hands on activities. Students were also able to speak with educators, government officials and industry representatives at the Pathways to Career; the largest skilled trades and technology career fair in the province. Young women in grades 9 – 12 were able to register for the Skilled Trades & Technology Conference for women, co-hosted by our partner, the IBEW and took place in conjunction with the Skills

Competition at the TradeX on April 9th. As always the students performed exceptionally well and all need to be congratulated for a job well done. For the gold medal winners heading off to the Nationals, the best of luck in your next competition. If you have not had students either participating in the Skills competition or attend the event, consider it for next year!

Thank you to those who submitted photos.





# Conference 2013

## Vendors



### ALDS

Assistive Listening Device Systems  
Don Clegg sales@alds.com  
www.alds.com  
Toll Free: 1-866-845-2537



### ASTTBC

Applied Science Technologists & Technicians  
of BC  
Jason Jung jjung@asttbc.org  
www.asttbc.org  
Tel (604) 585-2788



### Canadian Woodworker

Remi Moore  
remi@canadianwoodworker.com  
www.canadianwoodworker.com  
Tel (604) 574-1010



### CITO

Construction Industry Training Organization  
Dave Coleman davec@bccito.ca  
www.bccito.ca  
Tel: (604) 431-1994



### Engraver's Express

James Minchau  
James.minchau@troteclaser.com  
www.troteclaser.com  
Toll Free: 1-800-663-1149



### iDesign Solutions

Andy Fenos andy@idesignsol.com  
Agatha Radlowski agatha@idesignsol.com  
www.idesignsol.com  
Toll Free: 1-877-730-4770



### In-House Solutions

Kim Faustini  
Kim.Faustini@inhousesolutions.com  
www.inhousesolutions.com  
Toll Free: 1-800-529-5517



### Kidder Supplies

Fred Leighen  
fred@kidder.ca  
www.kidder.ca  
Toll Free: 1-800-263-3556



### KMS Tools

Kelly Caouette kelly@kmstools.com  
Ken Burgess ken@kmstools.com  
www.kmstools.com  
Toll Free: 1-800-567-8979



### Maker Mobile

Workshop on Wheels

Farrell Segall

team@makermobile.com

www.makermobile.org



### Masse Sales Ltd.

Scott Masse

scott@massesales.com

www.masse.com

Tel: 604-474-0411



### Mitchell 1

Dennis McIlroy

d-romac@telus.net

www.mitchell1.com

Tel: 604 420-4109



### Skills Canada-BC

Rene Ragetli

bc@skillscanada.com

www.skillscanada.bc.ca

Tel: 604-432-4229



### Studica

Derek Murphy

matthewc@studica.com

www.studica.com

Toll Free: 1-800-561-7520



### Tinkerine Studios

Dan Wu & Eugene Suyu

contact@tinkerines.com

www.tinkerines.com

Tel: 604-288-8778



### Upper Canada Forest Products

Matt Mumford & Will Carnes

sales\_vancouver@ucfp.com

www.ucfp.com

Toll Free: 1-800-610-2720



### West Cam

Chuck Van Volkingburgh

sales@westcam.ca

www.westcam.ca

Toll Free: 1-888-530-6068



### Western Gem & Mineral Supplies

Jon & Ruth Vaessen

westerngem@shaw.ca

Tel: 604-574-1980



### Westwind Hardwoods

Lars Nielson

larsn@westwindhardwood.com

www.westwindhardwood.com

Toll Free: 1-800-667-2275



### WorkSafeBC

Robin Schooley

robin.schooley@worksafebc.com

www.worksafebc.com

Toll Free: 1-888-621-7233





**iDESIGN**  
solutions

Your education source for software,  
technology and support services in  
North America



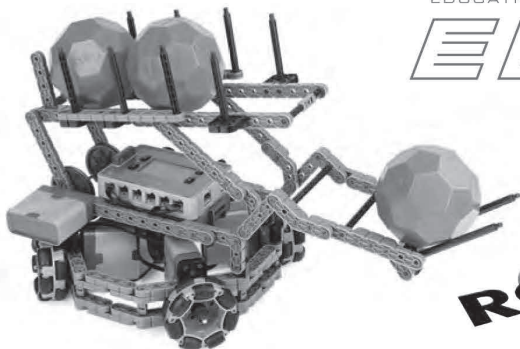
These products and more available at education discounted  
pricing from iDESIGN Solutions

**VEX IQ**

**VEX**  
EDUCATIONAL ROBOTICS  
**EDR**

**AUTODESK**  
Silver  
Education Specialist

**nss**  
NETSUPPORT  
SCHOOL



**ROBOT** 4.0

**AFINIA**



[www.idesignsol.com](http://www.idesignsol.com) 1.877.730.4770



# Student WorkSafe 10-12 Resource for teachers



**WORK SAFE BC**



# Student WorkSafe 10–12: Resource for Teachers

## 1. Introduction

### Why Student WorkSafe matters

Young workers are highly vulnerable to workplace injuries.

- On average, 27 young workers are injured every day in B.C.
- On average, 7 young workers are permanently disabled each week in B.C.
- Young males, in particular, face a 48 percent higher risk of injury than the overall working population.
- Workers are at the greatest risk of being seriously injured during their first 6 months on the job.
- Approximately 20 percent of the injuries and fatalities to young workers occur during the first month on the job.

WorkSafeBC is committed to reducing the number of injuries and fatalities among young workers in the province. WorkSafeBC dedicates significant time and resources to young worker injury prevention because

- Young workers face a higher risk of injury.

It's important to focus prevention efforts on the biggest problem and where they are likely to get the best results. Everyone deserves a safe workplace, but those at higher levels of risk need a higher degree of focus. Younger

workers are at greater risk because they lack the experience of their work peers, they often work in environments with more hazards, and they frequently engage in more physical work than their older counterparts.

- There is a heightened sense of tragedy when a young worker is seriously injured or killed at work.

There is an extreme sense of loss associated with the serious injury or death of a young person. Rightly or wrongly, it just seems more tragic when a young person is robbed of a healthy future.

- By focusing our efforts, we create the opportunity for long-term social change.

It's called safety culture, and we know by the success of anti-smoking and anti-drinking-and-driving campaigns that by focusing and reinforcing a message it is possible to achieve behavioural change. Focusing on young workers does make a difference, especially when you consider that today's injury rate for young male workers is a quarter of what it was three decades ago.

The Student WorkSafe program is an integral component of WorkSafeBC's strategy to create and achieve long-term reductions in occupational injuries and disease. Schools are in a unique position to take advantage of the settings where students are already engaged, and to provide the skills and attitudes young people need for a good, safe start to their working lives.

## Curriculum correlation

This edition of Student WorkSafe addresses prescribed learning outcomes in the following provincial courses:

Module	Course
Module 1: On the Job	<ul style="list-style-type: none"> <li>• Planning 10</li> <li>• Graduation Transitions 10-12</li> <li>• Ministry-Authorized Work Experience 12</li> <li>• Secondary School Apprenticeship</li> </ul>
Module 2: Addressing Workplace Hazards	<ul style="list-style-type: none"> <li>• Planning 10</li> <li>• Graduation Transitions 10-12</li> <li>• Ministry-Authorized Work Experience 12</li> <li>• Secondary School Apprenticeship</li> </ul>
Module 3: WorkSafe for Life	<ul style="list-style-type: none"> <li>• Planning 10</li> <li>• Graduation Transitions 10-12</li> </ul> <p>Additionally, the activities in this module can be used to support learning in the following courses, depending on the options selected by students:</p> <ul style="list-style-type: none"> <li>• Automotive Service Technician Level 1</li> <li>• Carpentry Level I</li> <li>• Dance 10, 11, and 12</li> <li>• Drama 10, 11, and 12</li> <li>• Home Economics 10, 11, and 12: Textiles</li> <li>• Home Economics 11 and 12: Cafeteria Training</li> <li>• Music 10, 11, and 12</li> <li>• Physical Education 10, 11, and 12</li> <li>• Professional Cook 1</li> <li>• Technology Education 10</li> <li>• Technology Education 11 and 12 courses (including Automotive Technology, Carpentry and Joinery, Drafting and Design, Electronics, Industrial Design, and Metal Fabrication and Machining)</li> <li>• Tourism 12</li> <li>• Visual Arts 10, 11, and 12</li> </ul>

See Appendix A for more detailed curriculum information.



## Curriculum correlation

This edition of Student WorkSafe addresses prescribed learning outcomes in the following provincial courses:

Module	Course
Module 1: On the Job	<ul style="list-style-type: none"> <li>• Planning 10</li> <li>• Graduation Transitions 10-12</li> <li>• Ministry-Authorized Work Experience 12</li> <li>• Secondary School Apprenticeship</li> </ul>
Module 2: Addressing Workplace Hazards	<ul style="list-style-type: none"> <li>• Planning 10</li> <li>• Graduation Transitions 10-12</li> <li>• Ministry-Authorized Work Experience 12</li> <li>• Secondary School Apprenticeship</li> </ul>
Module 3: WorkSafe for Life	<ul style="list-style-type: none"> <li>• Planning 10</li> <li>• Graduation Transitions 10-12</li> </ul> <p>Additionally, the activities in this module can be used to support learning in the following courses, depending on the options selected by students:</p> <ul style="list-style-type: none"> <li>• Automotive Service Technician Level 1</li> <li>• Carpentry Level I</li> <li>• Dance 10, 11, and 12</li> <li>• Drama 10, 11, and 12</li> <li>• Home Economics 10, 11, and 12: Textiles</li> <li>• Home Economics 11 and 12: Cafeteria Training</li> <li>• Music 10, 11, and 12</li> <li>• Physical Education 10, 11, and 12</li> <li>• Professional Cook 1</li> <li>• Technology Education 10</li> <li>• Technology Education 11 and 12 courses (including Automotive Technology, Carpentry and Joinery, Drafting and Design, Electronics, Industrial Design, and Metal Fabrication and Machining)</li> <li>• Tourism 12</li> <li>• Visual Arts 10, 11, and 12</li> </ul>

See Appendix A for more detailed curriculum information.



## young & new worker awareness program

On November 13th, at Salmon Arm Secondary, I stood up in front of approximately 250 Grade 9 students. My presentation on occupational health and safety was a stepping point, before each of them participated in the annual “Take Your Kid to Work Day.” As I was about to start my usual presentation, I turned to the teacher and asked, “Would any of these students know Shane Gorner?” to which he replied, “His brother is in the audience.”

In August of this year, 19 year old Shane Gorner was caught in a piece of machinery at his new job.

Mere weeks after the excitement of landing a good job, his young life was cut short and he tragically died of his injuries. I had assumed that many in the audience would have heard of this heartbreaking event, and I hoped that many would be familiar with the issues around workplace safety. Yet knowing that Shane’s family would be in

the audience and that almost all of them would feel a personal connection to this story, lent a special poignancy and clarified just how important my message was for these students.

Each year, young workers continue to be the most vulnerable when it comes to workplace health and safety. In BC,

**In BC,  
approximately 28  
young workers  
have time-loss  
injuries daily.**

approximately 28 young workers have time-loss injuries daily. Young workers from the Alive after Five program, part of the BCFED Health and Safety Centre, speak to over 17,000 students annually about their OH&S

rights. Our mandate is that all workplace injuries, illnesses, diseases and deaths are preventable and that through education, we can provide the tools for workers and students to help protect themselves.

With funding from WorkSafeBC, the Alive after Five program is able to provide free workshops for students across the province.

Each presentation is facilitated by young workers themselves, bringing both unique perspectives and personal experiences. With our belief that workplace deaths and injuries are preventable, we hope to inspire students to stand up for themselves, participate in health and safety decisions in their workplaces and understand that they have the right to refuse unsafe work.

To book an Alive after Five presentation for your school, please visit the website: <http://www.healthandsafetybc.ca/young-workers/request-workshop>







# INSIDE

Congratulations! You got the job. But there are things that you need to be aware of.

Young and new workers run a greater risk of being injured on the job than workers in any other age group.

## Young and new workers often end up doing very dangerous, dirty and difficult jobs.

- Over 50% of work-related accidents happen in the first six months on the job.
- Every day in B.C., 30 young workers have to miss work because of injuries.
- Close to one-third of all occupational injuries happen to young workers.
- On average in B.C. each year, over 150 people are killed because of their work.
- On average in Canada each year, over 1,050 people are killed because of their work.

Pg 1 –	Introduction
Pg 2 –	Hazards on the Job
Pg 3 –	Chemicals
Pg 4 –	WHMIS
Pg 5 –	Physical
Pg 6 –	Biological
Pg 7 –	Ergonomics
Pg 8 –	Psychosocial
Pg 9 –	Controlling the Hazards
Pg 10 –	Grant's Law
Pg 11 –	The Law When You Get a Job
Pg 13 –	Additional Orientation and Training
Pg 14 –	Right to Know/Participate
Pg 15 –	Right to Refuse/No Discrimination
Pg 16 –	What to Do if You Get Hurt

# RIGHTS



## When you get a job in BC, the law states:

### The following topics must be included in the young or new workers orientation and training:

- ☐ The name and contact information for the young or new worker's supervisor;
- ☐ The employer's and young or new worker's rights and responsibilities under the **Workers Compensation Act** and this **Regulation** including the reporting of unsafe conditions and the right to refuse to perform unsafe work;
- ☐ Workplace health and safety rules;
- ☐ Hazards to which the young or new worker may be exposed, including risks from robbery, assault or confrontation;
- ☐ Working alone or in isolation;
- ☐ Violence in the workplace;
- ☐ Personal protective equipment;
- ☐ Location of first aid facilities and means of summoning first aid and reporting illnesses and injuries;
- ☐ Emergency procedures;
- ☐ Instruction and demonstration of the young or new worker's work task or work process;
- ☐ The employer's health and safety program, if required under Section 3.1 of this **Regulation**;
- ☐ **WHMIS** information requirements set out in Part 5 of the **Workers Compensation Health and Safety Regulations** and this **Regulation**, as applicable to the young or new worker's workplace;
- ☐ Contact information for the occupational health and safety committee or the worker health and safety representative, as applicable to the workplace.



FYI

## Additional orientation and training

**An employer must provide a young or new worker with additional orientation and training if:**

- Workplace observation reveals that the young or new worker is not able to perform work tasks or work processes safely, or
- Requested by the young or new worker.

**An employer must keep records of all orientation and training provided under sections 3.23 and 3.24. The best way to protect yourself is to be aware of your rights in the workplace.**



13

## WHAT IF YOU GET HURT



**If you are injured at work or have symptoms of a work-related illness, follow these steps and options.**

**Step 1:** Report it to first aid attendant or supervisor

**Step 2:** Seek medical attention and tell your doctor your injury is work-related. Your employer is responsible for your transportation costs from your workplace to a doctor's office or hospital on the day of duty only.

**Step 3:** Start a claim by reporting it to the WCB as soon as possible. If you seek medical attention as a result of your injury, start your claim by:

- **Option 1:** Call WCB Teleclaim, 1 888-WORKERS, 1-888 967-5377
- **Option 2:** Download and submit an Application for Compensation at [worksafebc.com](http://worksafebc.com)



16





The **Alive After Five** Young Worker Awareness Program of the **British Columbia Federation of Labour** is an innovative initiative that seeks to make the province a **healthier and safer place to live and work for all** of us.

Since its inception in 2003, the **Alive After Five** program has **directly** spoken to over 66,000 high school students and employment centre participants. The program has reached over 75 different communities throughout **all** the different geographical regions of the province. Through hard work and dedication the initiative is now growing exponentially in its capacity with the **ultimate goal** of reaching **a** young and new workers in the province.

The programs entire funding comes from the support of WCB BC. As such, **Alive After Five** is able to provide **FREE** occupational health and safety presentations to **all** interested high schools and employment programs in any and **all** geographical area of the province.

The presentations are engaging and interactive for the participants. The programs over 50 **skilled** and trained facilitators provide dynamic and insightful information on such **vital** subjects as:

- Hazard recognition
- Knowing your Rights and Responsibilities in the workplace
- How to properly report injuries
- What protections are provided by the WCB Regulations

**All** of the **Alive After Five** presentation **facilitators** are young workers themselves; primarily between the ages of 21 and 30. These young **facilitators** share personal insights, humour and preparedness for what to expect once in the **workplace** to the students and participants. They **deliver** the presentations with a refreshingly new perspective and passion for protecting others from **workplace** injuries and **illness**.

If you or someone you know would be interested in having an **Alive After Five** presentation, or just to **learn** more about this exciting program, **please** do not hesitate to contact us at [ywsafety@bcfed.ca](mailto:ywsafety@bcfed.ca)



200-5118 Joyce Street (by Joyce Skytrain)  
Vancouver BC V5R 4H1  
604.430.1421  
1.888.223.5669  
604.430.5917  
[ywsafety@bcfed.ca](mailto:ywsafety@bcfed.ca)  
[www.healthandsafetybc.ca](http://www.healthandsafetybc.ca)



**B.C. Federation  
of Labour (CLC)**

designs by mkgp.ca

# bctea conference 2014



**Gladstone Secondary School**  
4105 Gladstone St.  
Vancouver, BC V5N 4Z2  
[www.go.vsb.bc.ca/schools/gladstone](http://www.go.vsb.bc.ca/schools/gladstone)

## About Our School

Gladstone Secondary School is a smaller high school with a population of around 1000 students. It is also in the federal riding that is considered one of the ethnically diverse neighborhoods in Canada.

We have managed to keep most of our technology areas open, with classes offered in Animation, Drafting, Electronics, Engineering, Jewelry Making, Graphics, Mechanics, Metalwork, and Woodwork. We have three full time teachers and one part-time.

## Conference Plans

In addition to workshops;  
***"Share Your Project"***

-If you have any project you wish to share with the actual object or pictures, we will have a display area specifically to allow for this.

***"Show and Shine"***

-Do you have a special ride? Let us know if you are interested in participating, so we can reserve the right amount of parking space....come show off your ride.

---

## Workshop Ideas

The conference planning committee wants to hear from you!

Tell us what you would like to see for a workshop. The conference committee will work to find people to present suggested

workshops.

We are also interested in hearing of possible workshop presenters that have not presented at BCTEA conferences in the past.

Send all ideas to [todd.ablett@gmail.com](mailto:todd.ablett@gmail.com)



Intent to Present at the  
BRITISH COLUMBIA TECHNOLOGY  
EDUCATION ASSOCIATION'S  
35th Annual Conference  
October 23-24, 2014

---

**Gladstone Secondary School**

4105 Gladstone St.  
Vancouver, BC V5N 4Z2

**Todd Ablett Conference Chair**

[tablett@vsb.bc.ca](mailto:tablett@vsb.bc.ca)

The purpose of this letter is to invite applicants to present at this year's annual Technology Education Conference. If you feel that you have something of interest that would benefit the delegates of this conference, please complete the following form and return it to the workshop coordinator. The conference committee will consider your application and advise you accordingly. Presenters may offer two (2) workshop sessions to have the full conference fee waived or if presenting one session, half the conference fee will be waived. Maximum one presenter/workshop will have their conference fee waived. As per BCTEA policy, travel expenses are not covered and BCTEA membership cannot be waived. Should you have further questions, please contact the workshop coordinator(s) via email.

**All presenters MUST register online for the conference indicating on the form that you are a presenter.  
Check the BCTEA website [www.bctea.org](http://www.bctea.org) for the online registration link.**

**Last Name:** \_\_\_\_\_ **First Name:** \_\_\_\_\_

**School/Business:** \_\_\_\_\_

**Phone:** \_\_\_\_\_ **Email:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Title of Workshop (as it will appear in the conference program - 7 words or less)**

\_\_\_\_\_

**Workshop Description (as it should appear in the conference program - 25 words or less)**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Intended Audience (check as applicable): Middle\_\_\_\_ Secondary\_\_\_\_

Required Facilities (ie: a classroom or a specific shop) \_\_\_\_\_

Required Equipment: \_\_\_\_\_

*Please apply as early as possible to allow the workshop coordinator to firm up the conference schedule.*



