



E-VIEW

The Journal of The British Columbia Technology Education Association

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As the school year comes to a close, projects are being finished off and pictures like these are being taken across the province.



Have a great summer!!

Directions in Technology Education?

Does a policy brief prepared for California educators by **Gary Hoachlander** have it right?

Written by: Luc Ouellet

There are numerous studies demonstrating how integration of tactile skills with academics increase students' achievement scores. Technology education is the platform that will enable us to demonstrate how project based learning can address many of the challenges facing education today and simultaneously prepare students for success in post-secondary or direct entry into the world of work. Hoachlander's premise is that we need to use public policy to promote Career & Technical Education programs. We are continually told about BC's need for highly skilled workers, and just recently the BC Construction Association has provided schools throughout the province with a \$40K set of tools to introduce a Skills Exploratory program in secondary schools to support this. Public perception regarding shops and trades is shifting; many parents are viewing trades as positive career options for their children. If we are to take advantage of the current public demand for what we have to offer, we must look at offering technical programs that address these needs. The status quo will need to change.

Technology programs are changing and many are disappearing. Some students are leaving high to attend post-secondary ACE-IT or Intro to Trades programs, being taught by post-secondary institutes while others are choosing to take a multitude of alternative elective course options. As shop program enroll-

ment decreases, you end up with increased #s of split classes and reduced budgets making it more difficult to operate full programs. Provincial objectives of increasing number of youth entering trades becomes increasingly more difficult as students no longer have an opportunity to see & experi-

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ence "real" technical activities in the school thus choose from a plethora of BAA programs being marketed to them (2700+ BAA courses have been created over the years). We need to look at how programs are delivered, what skill sets are being taught and how these can integrate with and be recognized by post-secondary institutes. Through the development of partnerships with local industry, working with post-secondary reps and allowing them to learn about the challenges faced in shops, they will see the challenges being faced. High school technology programs that tie in with post-secondary programs and are actively marketed to students and their parents as courses that provide students with pathways to post-secondary and later career development will be successful.

As technology education moves into the future what it will look like will be dependent upon how we address the challenges we currently are facing. The "Best Practices" guide addresses many concerns but does not address how the practice will change to meet the needs of our students and community. Government efforts to increase the numbers of skilled people have been focused on support of post-secondary primarily because post-secondary has a uniformed set of standards and measureable outcomes. We are the 1st to work with youth and are in the most advantageous position to make a significant impact upon students' views about technical career options, what we need is a significant shift in how they 1st experience technology education.

Hoachlander's article provides an overview and a rough framework for change. Are his ideas some we could consider here?

Read Hoachlander's policy brief in its entirety at the link below.

<http://connectedcalifornia.org/downloads/GovSummit.pdf>

CNC Plasma Cutters bring new life to metal programs



Written by: Chris Armstrong

Truck bumpers have been a staple project in senior metalwork programs for years. The addition of CNC plasma cutters to many high school shops has created a new avenue for learning and fabricating. For this particular project shown, the student first started with the concept of creating a bumper and after a

“....he then took the individual cardboard pieces and had to draw them up in CAD.”

number of google searches and sketches a potential design was chosen. From there he moved on to 3D modelling it out of cardboard. Once a full 3D cardboard model was achieved and fit to the truck, he then took the individual cardboard pieces and had to draw them up in CAD. Finally, the CAD file was taken to the CNC plasma cutter. Once all the pieces were cut, the pieces were welded together to develop the final product. The cleats for the shackles were cut out on a bandsaw, drilled on a drill press, and welded to the bumper. The



bar above the fog lights was bent on the hydraulic pipe bender and welded in place. In general, the pieces were tacked together by MIG welding and then stick welded together to produce a strong bond for all the final welds. A great project for students looking to add that custom touch to their ride.



Facebook Page Update

The BCTEA Facebook page is being changed to a Group page. You will now be able to “JOIN” and post to the group. Only members of the group will see the posts. The old Facebook Page will be removed June 30th. Please “JOIN” the new group @

<https://www.facebook.com/groups/bctea>

Conference 2015

"Real projects, Real learning, Real world"

The British Columbia Technology Education Association is hosting the largest Technology Education conference in recent years. With declining student enrollment and lower student interest in shop classes, there has been a reduction in the number of Technology Education teachers in the province. Thus enrollment has declined at our annual conference. The executive want to turn this around by hosting an excellent conference where teachers can learn the latest skills for their courses, and have interactive sessions where we collectively plan for the future. **We have reduced the cost of the conference to \$100.00**, and with the BCTF planning a joint PSA conference in 2016, you will not have another opportunity to attend a similar conference until 2017. This is the year to attend!

The banquet has been changed into a burger and

If you would like to present, please send us a brief description of the workshop you would host.

refreshment social. It will start right after the conference day and run until 8ish. Vancouver Community College, Kingsway campus (automotive campus) has been very supportive and are willing to not only host our Social event, but also to run workshops during the conference at their campus. This will be great additional space to run auto, collision and welding workshops, along with the expertise from their instructors.

We have surveyed all shop teachers and from those results we are organizing workshops accordingly. We want to give you what you have asked for, and more. To find the right person for delivering a workshop we are asking some individuals that we know, but we would also like you to volunteer to do a workshop that you feel others would like to see.

If you would like to present please send us a brief description of the workshop you would host. We are very open to having multiple presenters combine to

create a workshop, so either you can contact someone you know, or we may ask you to co present. All presenters will only pay their \$30.00 BCTEA membership fees. The conference fees will be waived.

Focus areas based on feedback from the survey sent out are as follows;

- Skills Exploratory course
(Carpentry, Electrical, Plumbing, Auto mechanics)
- Auto mechanics
(Beginner, brakes, code scanner)
- Electronics/Robotics
(simple projects, Arduino, electrical, Vex)
- Woodwork—Junior/Senior
(simple projects, finishing, turning, sharpening, Bandsaw boxes, CNC routers)
- Metalwork—Junior/Senior
(simple projects, Oxy, Mig & Tig, lathe)
- Career education
ACE IT, SSA, Work Experience
- Drafting
(Autocad-Mech, AutoCad-Architect, Inventor)
- Technology
(3d Printers/Laser Engravers/Sign cutter)
- Something different or new
(Semester programs, trades samplers, STEM, etc)
- 5-10 minute project share—ALL areas!!
(fee not waived—participants entered in draws)
- Project Photos
(displayed on screens during conference)

Please send your ideas to info@bctea.org

Deadline June 25, 2015