

# Mathematics Council NEWSLETTER

The Alberta Teachers' Association

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## President's Message

**E**aster has come and gone and spring is supposed to be here—really. Looking out at my front yard as I write this message and seeing the four feet of snow, I'm not 100 per cent convinced. However, warmer weather is definitely coming. Maybe by the time this actually goes to print the snow will be gone in my yard as well.

On the mathematics front we have nearly completed the new math curriculum rollout. Math 30-1, 30-2 and 30-3 will have been run for the first year. Teachers should have a good grasp of the new pedagogy that is the backbone of the changes in our curriculum over the past seven years. As teachers have become more familiar with it, I have seen a lot of changes for the better in student understanding and particularly in students' communication of that understanding. A more positive attitude has also become more the rule rather than the exception.

It will be interesting to see what new things will come out of the Inspiring Education talks. Let's hope we don't just jump on a new red wagon just for the sake of change. At this point it's a lot like spring—we know some changes are coming. We just need to wait to see what they are.

Remember to register for the October MCATA conference. Registration forms are available on the MCATA website. We have two early-bird draws, so register early and get your name in.

Remember—do math and you can do anything!

*Marj Farris*

## From the Editor's Laptop

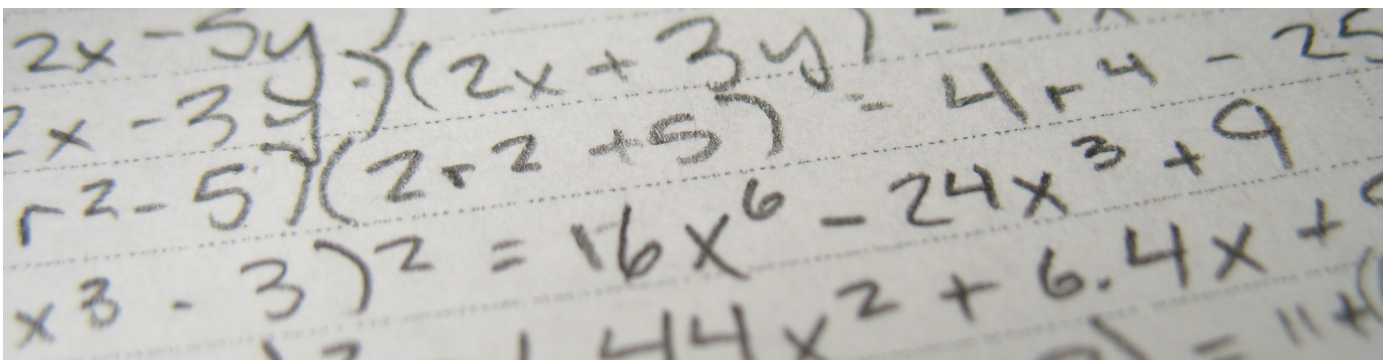
**T**he 2013 MCATA conference's theme is "Math Is ...???" According to Mr Webster, math (or mathematics, anyway) is the science of numbers and their operations, interrelations, combinations, generalizations, and abstractions, and of space configuration and their structure, measurement, transformations and generalizations. Wow—a mouthful, and really quite uninspiring. According to my students, math is everything from "ever present (much to my dismay)," "Fun, but only when I get it" to "fantastically ordered."

Math is excitement. To me math is remembering a student's math eureka! moment. Math is driving down the road with a math colleague and calculating that other colleagues would have to be doing 180km/h if they actually are where they say they are. Math is my brother's joke, "What did the zero say to the eight? Nice belt!" Yes, there are lots of numbers and letters in math, but math is so much more! Let us continue in 2013 with the goal of convincing every one of our students that math is fun (or at least not stupid).

And if you have any great "Math is ..." blank fillers, consider becoming a speaker for our next conference.

Keep up the energy as we again approach the end of a school year!

*Karen Bouwman*



# Alberta Education

## The Mathematical Processes—Technology

The final instalment of our series on the seven mathematical processes looks at the process of technology (T). At its most effective, technology enables students to explore and create patterns, examine relationships, test conjectures and solve problems in a way that is impossible using traditional techniques. Technology can reduce the time and effort required for tedious computations and can increase students' time and ability to focus on more important aspects of mathematics. It can provide multiple representations of the mathematics and help students discover and understand concepts. Technology can also enable teachers to support both how and what students learn.

Although technology in today's society is ubiquitous, students often need guidance to appropriately choose and use technology in mathematics so that it supports their conceptual understanding. The Alberta mathematics programs of study identify many outcomes for which technology should be used in teaching and learning. In every case, technology should not replace mathematical understanding, but should create new opportunities for concept development and strengthen learning that students already have. Keeping our collective focus on how technology can support mathematical understanding, rather than on a specific technological tool, will enable our students to have the fluency necessary to approach mathematics in the future with the appropriate and available technology.

There is no doubt that technology continues to have a huge impact on the teaching and learning of mathematics—in fact, it was the topic of the 2013 MCATA Spring Symposium. To see what technology or any of the other seven mathematical processes may look like when embedded in mathematics teaching and learning, I invite you to visit our website at <http://education.alberta.ca/math> and click on “See all videos.” There you will find a series of videos filmed in Alberta classrooms where students and teachers focus on the seven mathematical processes. Each video comes with a fact sheet that can be used as a conversation starter for your department, jurisdiction or professional learning network as you develop new ways to help students gain these critical process skills that they will use throughout their lives.

## Provincial Assessment Working Groups

Two groups of teachers across the province met in Edmonton in February to participate in the confirmation of standards for the Mathematics 30-1

and the Mathematics 30-2 diploma examinations. For each subject, benchmarks of performance for the acceptable standard and the standard of excellence were first established. Two commonly accepted statistical procedures were then used to determine whether the Mathematics 30-1 and Mathematics 30-2 January 2013 diploma examinations appropriately reflected these performance benchmarks. In addition, analysis involving students who also wrote diploma examinations in English 30-1 and Chemistry 30 confirmed that the established benchmarks and standards were appropriate. Any necessary adjustments to the results were based on the outcome of these statistical procedures. Standards confirmation will be held again in February 2014 for the June 2013 and January 2014 diploma examinations. Fairness to students and student success will continue to be the focus of any changes to provincial assessments.

## French Resources

A French mathematics digital interactive dictionary for Grades 3–6, the *Dictionnaire mathématique CEC jeunesse*, is available on LearnAlberta for students and teachers. This resource is equipped with many tools and functionalities, including instructional videos, in-text links to definitions, text browsing and personal bookmarks, and it allows users to make notes and highlight information. Each user needs a personal code, which can be obtained from LearnAlberta. Users will need to know the LearnAlberta user name and password from their school jurisdiction in order to obtain a code. If teachers want to obtain codes for their entire class, they need to register under a personal teacher account. For more information please contact Diane Stobbe, team leader Mathematics K–12 (French Language Education Services) at [diane.stobbe@gov.ab.ca](mailto:diane.stobbe@gov.ab.ca) or 780-427-7489. To be connected toll-free inside Alberta, dial 310-0000.

Mathématiques 31: The 11th edition of the two authorized resources *Calcul différentiel* and *Calcul intégral* are now available through LRC.

Mathématiques 31: The authorized resource *Le calcul différentiel et intégral*, which is out of print, is available as a special order through LRC in a coil-bound form. Please contact Emily Ma at LRC at [emily.ma@gov.ab.ca](mailto:emily.ma@gov.ab.ca) to order the book.

## More Mathematics Information

It is my pleasure to welcome Amaya Ortigosa to the Alberta Education mathematics team as the team leader, Mathematics K–9 in the Programs of Study and Resources sector. Amaya Ortigosa received her BSc and MSc from the University of Toronto. Her experience as a

teaching assistant during her master's studies unleashed her love of teaching and began her career in education. After finishing her MSc, she went on to complete her BEd (mathematics and science) and gained experience teaching students at the elementary, junior high and high school levels. Amaya moved to Alberta in 2001 and taught junior high mathematics and science with Edmonton Public Schools. Amaya can be contacted at

amaya.ortigosa@gov.ab.ca or 780-422-5079. Welcome aboard, Amaya!

For questions about high school mathematics, please contact Kris Reid, team leader Mathematics 10–12, at kris.reid@gov.ab.ca or 780-427-3588. To be connected toll-free inside Alberta, dial 310-0000.

Don't forget to visit our website, <http://education.alberta.ca/math>.

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## MCATA Table Officer Election Results

On March 19, 2013, two people let their name stand for the positions of MCATA treasurer and vice-president PD. Because both positions were acclaimed, there will be no elections for these two positions at our annual general meeting at our annual conference. Mark Mercer is our treasurer and Rod Lowry is VP of PD. Congratulations to both of you, and thank you for volunteering to further the mission of MCATA to provide leadership to encourage the continuing enhancement of teaching, learning and understanding. I would also like to thank Lisa Everitt for all her work during this process.

*Daryl M J Chichak  
Returning Officer*



## Nominate a Fellow Math Educator

Do you know a superb math teacher who is reaching students? Or a math leader who is helping both teachers and students improve their understanding?

Why not nominate this person for Math Educator of the Year? Categories include elementary, secondary and those who have contributed toward professional development.

Go to [www.mathteachers.ab.ca](http://www.mathteachers.ab.ca), select Grants and Awards on the left-hand side, and click on Alberta Math Educator Awards to submit your nomination today!

## Proposals for Fall Conference: Math Is ...???

We are still looking for proposals for our conference in October 2013. If you or someone you know has tried something new and innovative or has a lesson, activity or idea that has advanced mathematics in your classroom, we would love to receive a proposal!

Proposal forms can be found on our website, [www.mathteachers.ab.ca](http://www.mathteachers.ab.ca).

Please remember to renew your complimentary specialist council membership. To renew online, go to the ATA website, [www.teachers.ab.ca](http://www.teachers.ab.ca), and click on For Members, Professional Development, Specialist Councils and Specialist Council Memberships.

# Message from the President of the ATA

## The Way Forward

The past few months have been trying for teachers and for public education in Alberta. The government of Alberta, because of decisions it has made, has become mired in financial difficulty. The provincial budget reduced funding for school boards by \$14.5 million. To make matters worse, we have 11,000 new students coming into our schools this fall. Boards will have difficult choices to make, and we anticipate cuts that will have dramatic effects on our classrooms. The class sizes recommended by the Commission on Learning (17, 23 and 28) have not been honoured for many years. Rural schools, especially, struggle to provide programs to meet the needs of their diverse students. Teachers are very concerned about conditions of practice and workload. Our association is also concerned, and that is why we have launched a provincewide publicity campaign to dramatize the impacts that these cuts will have in our schools. The campaign will increase in intensity over the next months. Polling shows that Albertans support a well-funded public education system. Please do your part and contact your MLA to express your concerns. Support your local executive, attend upcoming bargaining meetings and become aware of the issues in your jurisdiction.

*Carol Henderson  
ATA President*

## Save the Dates



### Fall Symposium

When: October 16, 2013

Where: River Cree Resort, Enoch, Alberta

What: Fall Symposium—more information to follow. Also watch [www.mathteachers.ab.ca](http://www.mathteachers.ab.ca) for updates.

### MCATA Fall Conference

Join us October 17–19, 2013 for

#### Math Is ...???

MCATA Conference 2013

Edmonton Marriott at River Cree Resort  
Enoch, Alberta

More information and the registration link can be found at [www.mathteachers.ab.ca](http://www.mathteachers.ab.ca).

We look forward to seeing you there!



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Personal information regarding any person named in this document is for the sole purpose of professional consultation between members of the ATA.