

Mathematics Council NEWSLETTER

The Alberta Teachers' Association

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President's Message

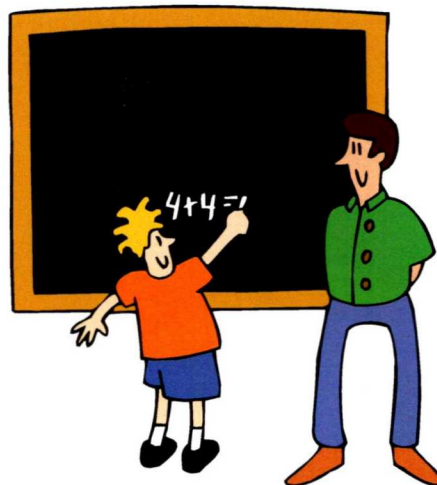
As you read this, another school year is coming to an end. This is always an exciting time of year as we anticipate a well-deserved summer break. On the other hand, it is also a sad time as we say goodbye to students with whom we may never have contact again. As students move from one year or one level to the next, we often wonder how they will fare. We have worked hard to instill a love of mathematics in students and provide them with a foundation that they can build on in the future. Whether you are busy preparing students for their PATs or diploma exams or trying to clarify the connections they have made through the year, know that you have made a difference. Whether this was your first year, your last year or somewhere in between, I hope that it brought you something new and exciting.

At the surface the new curriculum may not seem that different, but the depth of mathematical understanding is critical. Please take the time to read through the material at the front of the program of studies. If you are teaching the optional new curriculum in kindergarten or Grades 1, 4 or 7 this year, please share your experiences with colleagues. Between now and 2012 we must keep talking to each other and drawing on the amazing expertise of Alberta teachers in developing best practices. Whether you attend workshops, summer institutes or conferences, form professional learning communities or meet informally with colleagues to discuss the changes, it is important that we keep the dialogue open and remain focused on the reasons for change—our students.

I have had the pleasure and the challenge of discussing the new curriculum with many people over the past few years. There are many different viewpoints about what is important, what should and should not be in the curriculum and the best delivery methods. Debate is healthy, and at the end of the day we do not have to be happy about all decisions made. Because we are so passionate about how we feel about mathematics, it would be impossible for all math teachers to be happy, but the one thing that I know for certain is that we will all do the best job we can to ensure that our students are prepared for what lies ahead.

Mathematics teachers in Alberta have always done a wonderful job of preparing students to be logical, mathematical thinkers. As we start to implement the new curriculum we must be open to the changes in methodology. We must encourage our students to share their solutions and their way of thinking through problems. When we learn more of our students' personal strategies, we will be able to guide their mathematical reasoning skills. At the end of a school year, we often wonder if we have reached some of our students and if all the work we have done was successful. When we watch the light turn on or see the struggling student graduate and move on, we know it is worth it.

Enjoy your summer, take time to bask in the successes of the last year and recharge your batteries for the excitement of next year. I look forward to seeing you in Jasper in October!



Sharon Gach

From the Editor's Pencil

As you read through the newsletter, please watch for the nomination forms that are included with this issue. We are fortunate to have some new members on the MCATA executive this year, but fresh eyes and spirits are always welcome. Belonging to this specialist council allows math teachers provincewide to influence curriculum and to develop relationships with other like-minded professionals. If you or someone you know is interested in serving on the Mathematics Council, now might be the time to consider doing it. It is a fun and rewarding experience that I highly recommend.

As another school year draws to a close, I find myself facing other endings and this will be one of them. After six years of editing this newsletter, I am handing the reins to one of our aforementioned new executive members, Tancy Lazar. Her youth and enthusiasm will bring a new outlook and perspective to this publication, and I am confident that she will do an outstanding job.

Anne MacQuarrie

New Executive Members

Don Cameron

Don Cameron has been teaching math and science for 35 years in Alberta, Northwest Territories, Newfoundland, Nova Scotia and Germany. Presently, he is principal of the Blessed Sacrament Outreach School, in Wainwright, Alberta. Previous to that he was the AISI coordinator for East Central Alberta Catholic Schools No 16, looking after projects in math and science. Don has a BSc from Dalhousie University, and a BEd and MEd from Saint Francis Xavier University.

Tancy Lazar

Tancy Lazar is an elementary teacher with the Calgary Board of Education. She graduated from the University of Winnipeg three years ago, where she majored in mathematics. She has a passion for math and is particularly keen about helping all children develop their sense of mathematical literacy.

Canadian Teachers Overseas

The Alberta Teachers' Association (ATA) has been a participant in the Canadian Teachers' Federation Project Overseas since 1964 when two teachers went to Ghana to work with the Ghana National Union of Teachers. Ten teachers are now fully funded for participation in Project Overseas. This summer, 50 Canadian teachers will take part in 14 teams in 12 countries.

An ATA committee selects up to 15 teachers who have not served in the past and sends these names to the CTF. The selection is based on the backgrounds of the teachers, on written responses from personal references provided by applicants, and to some degree on involvement in the work of the Association.

All expenses for the project including travel and medical insurance, along with evacuation coverage are provided for by the ATA and CTF.

Math and science teachers are desperately needed, but the number of applications from teachers in these specialties is often low. For further information, see the ATA website under International Assistance (www.teachers.ab.ca) or call Tim Johnston at Barnett House at (780) 447-9400 (in Edmonton) or 1-800-232-7208 (toll free in Alberta).

*Carol Henderson
Provincial Executive Council Liaison*

MCATA 2007 Fall Symposium

Our 2007 fall symposium was held at the West Edmonton Mall Conference Centre, on October 18. Dr Lynn McGarvey, an associate professor of mathematics education from the University of Alberta, presented on the topic "Connecting Algebraic Thinking to Algebraic Representation." The diverse group of participants expressed great interest in Dr McGarvey's session, which led to excellent professional conversations about the topic. Every one of the feedback sheets we received had very positive comments about the session, and about Dr McGarvey in particular. Our symposia are generally held twice a year and are opportunities for people involved in mathematics education leadership to deeply explore current topics and issues. Our spring symposium will be held on June 9, 2008, in Calgary, and the topic will be "Personal Strategies," with Dr Florence Glanfield.

Real Learning First Action Plan Information

At its April 7–8, 2008, meeting, Provincial Executive Council approved in principle an action plan dedicated to protecting the integrity of public education by advancing an approach to accountability, including student assessment, evaluation and reporting, that puts real learning first. The goals of the plan are

- to encourage teachers, school communities and education partners to examine how the government's current accountability initiatives tend to undermine attempts by teachers to provide high-quality assessments of their students' achievement and by schools and jurisdictions to develop meaningful measures of their performance;
- to affirm the central role that teachers' professional judgment plays in diagnosing, assessing and responding to the learning needs of students;
- to urge the government to shift its accountability scheme from one that relies on large-scale external tests to one that (a) focuses on teacher-developed student assessments that conform to professional standards of practice, and (b) fosters the conditions necessary for optimal teaching and learning; and
- to work with education partners to urge the government to adopt a system of educational accountability that supports student learning and that improves the capacity of teachers, schools and jurisdictions to respond to the growing complexity and diversity of classrooms.

The action plan will communicate three key messages: (1) teachers are ultimately responsible, both legally and professionally, for evaluating and reporting student progress; (2) the current emphasis on standardized testing programs does little to address the individual needs of students and diverts precious resources away from the classroom; and (3) relying on standardized testing programs to determine school and school-system performance misrepresents the work of teachers and schools.

Revised Structure for Alberta High School Mathematics

Course Sequences

- Combined Math 10 will provide the necessary foundation of knowledge, skills and attitudes for students to go into either Math 20-1 or Math 20-2.
- Math 20-1 and 30-1 are intended for students who plan to enter postsecondary programs, such as engineering and science that may require calculus.
- Math 20-2 and 30-2 are intended for students who plan to enter postsecondary programs, such as arts, nursing and elementary education, that do not require calculus.
- Math 10-3, 20-3 and 30-3 are intended for students who may enter an apprenticeship program or go directly into the workforce.

Postsecondary Acceptance

Dialogue is ongoing with the following postsecondary institutions to gain acceptance of Math 30-2 for admission to some programs:

- Universities of Alberta, Calgary and Lethbridge
- NAIT and SAIT
- Concordia University College (Applied Math 30)
- Grant MacEwan, Mount Royal

See Alberta Education Update on page 4 for information timeline.

Contact Kathy McCabe, program manager, K–12 Mathematics Curriculum Branch, e-mail Kathy.McCabe@gov.ab.ca, phone (780) 422-1901; Lorne Lindenberg, curriculum manager, 10–12 Mathematics Curriculum Branch, e-mail Lorne.Lindenberg@gov.ab.ca, phone (780) 644-5318; Christine Henzel, resource manager, 10–12 Mathematics Learning and Teaching Resources, e-mail Christine.Henzel@gov.ab.ca, phone (780) 415-8958; or Hélène Gendron, program manager, K–12 Mathematics French Language Services Branch, e-mail Helene.Gendron@gov.ab.ca, phone (780) 422-1901.

Automatic Specialist Council Membership

As a benefit of active membership in the Association, every active member is eligible to join one specialist council of his or her choice every year at no charge. Application for a no-cost membership can only be made online on the ATA website (www.teachers.ab.ca). Those who wish to join more than one council must pay a membership fee for each additional council they wish to join. See a specialist council directory at www.teachers.ab.ca.

Alberta Education Update

Provincial Implementation of Revised K–12 Program of Studies

Alberta Mathematics Programs: Implementation Timeline

	2007	2008	2009	2010	2011	2012
Optional (E)	K, 1, 4, 7	2, 5, 8	3, 6, 9			
Provincial (E&F)		K, 1, 4, 7	2, 5, 8	3, 6, 9, 10	11	12

The revised mathematics K–9 program of studies is available on the Alberta Education website at www.education.gov.ab.ca. Provincial implementation of kindergarten and Grades 1, 4 and 7 begins in September 2008 in English and French. Optional implementation of Grades 2, 5 and 8 also begins in September 2008.

The following English-language resources have been authorized to support implementation and are available through the Learning Resources Centre (LRC):

- Nelson Math Focus K
- Nelson Math Focus 1
- Nelson Math Focus 2
- Nelson Math Focus 4
- Nelson Math Focus 5
- Nelson Math Focus 7
- Nelson Math Focus 8
- MathLinks 7
- MathLinks 8
- Math Makes Sense K (WNCP Edition)
- Math Makes Sense 1 (WNCP Edition)
- Math Makes Sense 2 (WNCP Edition)
- Math Makes Sense 4 (WNCP Edition)
- Math Makes Sense 5 (WNCP Edition)
- Math Makes Sense 7 (WNCP Edition)
- Math Makes Sense 8 (WNCP Edition)

The following French language resources have been authorized and are available through the LRC. Please note that there is only one French language resource authorized at each grade level.

- Kindergarten—Chenelière mathématiques M (French version of Math Makes Sense K)—LRC # 716459, 716433, 716441

- Grade 1—Chenelière mathématiques 1 (French version of Math Makes Sense 1)—LRC # 716483, 716467, 716475, 736879
- Grade 4—Compas mathématiques 4 (French version of Math Focus 4)—LRC # 716425, 716417, 716409 or 735318
- Grade 7—Chenelière mathématiques 7 (French version of Math Makes Sense 7)—LRC # 716508, 716491

Additional English and French support resources will be available in fall 2008 at www.learnalberta.ca.

Summer Institute

Alberta Education is offering a summer institute, in English and French, at the Lister Centre in Edmonton from July 8 to 10, 2008. The institute is offered at no cost to teachers. View the registration form on the Alberta Education website.

Grades 10–12 Mathematics

The Alberta mathematics Grades 10–12 program of studies will be posted on the Alberta Education website in June 2008. Faculties at Alberta universities are discussing the acceptance of the course sequences from the revised program. The University of Alberta has indicated that it will accept Mathematics 30-2 as a prerequisite for STAT 141 and MATH 153, thereby increasing postsecondary options available to students choosing Mathematics 30-2. Decisions on the acceptance of the mathematics course sequences are anticipated well in advance of the first graduates of the program.

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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.