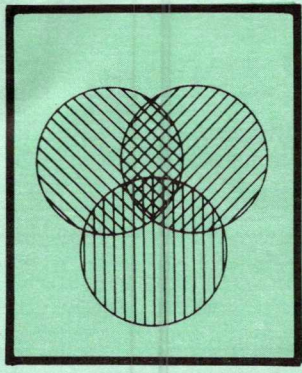


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Mathematics Council NEWSLETTER

The Alberta Teachers' Association

Providing leadership to encourage the continuing enhancement of teaching, learning and understanding mathematics.

Volume 21

Number 1

September 2002

President's Message

It has been a good two years as the Math Council president. I have learned that your executive members are dedicated and hardworking and that the ATA gives the Council amazing support. It takes many levels of cooperation and communication to keep organizations operating successfully, and we are fortunate to have such a group within our province. Math teachers are wonderful!

Thank you to outgoing executive member Evelyn Sawicki, who helped with conferences and publications. And welcome to our new executive members: Shauna Boyce will help in the publication area, and Chris Chambers will work on grants and awards as well as help out with conferences. Janis Kristjansson will take on a new role of director helping out with special projects and conferences.

I look forward to seeing you at our fall annual meeting and conference in Canmore. The committee has been working hard all year to get things in place for yet another successful conference.

—Sandra Unrau

2003 Canadian Regional NCTM/MCATA Conference: Call for Speakers

We are looking for speakers to present at this exciting conference, November 20–22, 2003, in Edmonton. NCTM is projecting an attendance of over 2,000 teachers, so you will have an opportunity to inspire many people with your passion. If you are interested, please send in your speaker proposal right away.

The program committee comprises seven local people who will select and submit their choices. NCTM must receive all information for the conference flyer and program much earlier than is required by MCATA, so please apply soon. For more information, please visit our website at www.mathteachers.ab.ca.

—Sandra Unrau

MCATA ANNUAL CONFERENCE

October 31 – November 2, 2002

Radisson Hotel and Conference Centre, Canmore

Summit in Canmore

Mathematical Thinking and Mathematical Literacy

From the Editor's Pencil

As we head off into another exciting year, I look forward to receiving items from you that you think are pertinent to teaching math today. We are all experts in our own way and sharing with each other through this newsletter allows us to keep in touch with what is happening around the province. As a classroom teacher myself, I know how short our time is, especially if we want to have lives outside school. However, if you have found something that you think would interest your colleagues, or if you have done something to turn students on to math, a short note is all I need. The Dialogue column in the last volume was a great connection that I particularly enjoyed reading. Let's get a dialogue going again.

This year's MCATA Conference will be held in Canmore at the end of October. Past conferences have been rewarding, informative and fun, and this one promises to be at least as good and maybe even better. It is always good to have our ideas challenged, especially if it causes us to reflect on our practice and achieve clarity about why and how we do things in our classrooms. As well as being a great place to connect with others, the venue in Canmore is wonderful and there will be lots to see and do after hours. For more information, check our website at www.mathteachers.ab.ca. See you in Canmore!

If you have any questions or comments about this newsletter, contact me at anne.macquarrie@shaw.ca.

—Anne MacQuarrie

Alberta Learning Update

Curriculum

The revised Applied Mathematics 10-20-30, Pure Mathematics 10-20-30 and Mathematics Preparation 10 Program of Studies were approved in May 2002, and provincial implementation took place in September 2002. These new programs of study are available on the Alberta Learning

website: www.learning.gov.ab.ca/k_12/curriculum/bySubject/math.

The new versions of the assessment standards for Pure Mathematics 10-20 and Applied Mathematics 10-20 have been placed on the Alberta Learning website www.learning.gov.ab.ca/k_12/curriculum/bySubject/math. These documents incorporate the wording of outcomes in the Program of Studies approved by the minister this summer. Hard copies are not being sent to schools; however, hard copies of the 2001 editions are still usable, as the wording changes to outcomes were very minor at the 10-20 level, and no changes were made to either the outcome notes or the illustrative examples. For further details, contact either Debbie Duvall, consultant, Learning and Teaching Resources Branch, 780-422-3257, e-mail debbie.duvall@gov.ab.ca or Jack Edwards, examination manager at large, Learner Assessment Branch, 780-427-1573, e-mail jedwards@gov.ab.ca.

Learner Assessment Branch

The Applied Mathematics 30 and Pure Mathematics 30 Bulletins for 2002/03 and the projects for Applied Mathematics 30 and Pure Mathematics 30 for September 2002 were delivered to the schools at the beginning of September. Each of these bulletins reflects the new Program of Studies for these courses. The bulletins, a highlighted sheet of the changes to the bulletins, and the projects are also available on Alberta Learning's website www.learning.gov.ab.ca/k_12/testing/. The solutions for the projects can be found on the extranet.

This year, the diploma examination for Applied Mathematics 30 will be worth 50 percent of the student's final mark. For students repeating Applied Mathematics 30, the weighting will depend on which diploma exam mark will give the student the best overall mark possible. The highest school awarded mark will be used and if it is blended with last year's diploma exam mark, the weighting will be 80 percent, 20 percent. If it is blended with this year's diploma exam mark, the weighting will be 50 percent, 50 percent.

A Mathematics 33 diploma exam will continue to be available in all regular writing administrations

until August 2003. These diploma examinations are intended for repeating students, adult students, distance learning students and students with special circumstances.

For further information regarding diploma examinations for Pure Mathematics 30, contact Hank Reinbold, Pure Mathematics 30 exam manager at 780-427-0010, hank.reinbold@gov.ab.ca; for further information regarding diploma examinations for Applied Mathematics 30, contact Deanna Shostak, Applied Mathematics 30 exam manager at 780-427-0010, deanna.shostak@gov.ab.ca.

Learning Technologies Branch

The A-pack for Applied Mathematics 30, Mathematics 6 and Mathematics 3 became available in September 2002. For Applied Mathematics 30, a B-pack will follow and for Mathematics 6 and Mathematics 3, a B-pack and C-pack will follow. For further information, contact George Mudryk at 780-674-8735 or george.mudryk@gov.ab.ca.

New for Back to School: Mathematics Resources from LearnAlberta.ca

LearnAlberta.ca is a digital learning environment for Alberta's K-12 learning community. You'll find multimedia resources correlated to the Alberta mathematics program of studies. These engaging video segments, interactive concept lessons and discovery applets can help your students. Use these resources anywhere and anytime you have access to the Internet: in classrooms and computers labs, at home for lesson planning and as homework help for students.

Multimedia Applied Mathematics Project

✦ www.learnalberta.ca/Math98/Math98Index.asp

This resource addresses outcomes in Applied Mathematics 10, 20 and 30. The segments use real-world situations to illustrate mathematics concepts. Titles include Budgeting, Periodic Events and Sales Income. Each multimedia segment includes a description and the Alberta Learning Curriculum Outcomes. Visit often. New titles are being added all the time.

High School Mathematics Discovery Applets

✦ www.learnalberta.ca/Applets/Index.asp

These "explorers" can assist you in explaining challenging concepts, such as quadratic functions, trigonometry and binomial distributions. The Eisenhower National Clearinghouse recognized these applets on their list of exemplary websites for educators. They were developed by Ron Blond, Learning Technologies Branch, Alberta Learning.

Mathematics 14

The Mathematics 14 textbook *Continuum* is now available at the Learning Resources Centre (LRC) www.lrc.learning.gov.ab.ca. The multimedia components of this resource are currently under development; these interactive concept lessons will be posted on the LearnAlberta.ca website in the fall. The CD-ROM containing part one is now available at the LRC.

Online Elementary Mathematics Resource: Mathematics 6

This popular resource will soon be available on CD-ROM from the Learning Resources Centre (LRC) www.lrc.learning.gov.ab.ca. You can access Math 6 via LearnAlberta.ca (www.learnalberta.ca/Math/default.asp) to find interactive concept lessons, problem-solving strategies, number operations and a glossary. Your students can join the Spy Guy on an interactive math adventure. Fans of this resource will be pleased to hear that Mathematics 5 is under development.

The Learning Equation (TLE) 11-Pure Mathematics 20

Coming soon to LearnAlberta.ca! The TLE project delivers world-class, computer-guided learning mathematics resources. A recent Alberta Learning study noted that TLE offers an innovative way for students to learn and teachers to teach mathematics.



NCTM Bookstore in Canmore

On behalf of the membership, MCATA has purchased a number of new resources and supplies from NCTM. These will be available at the conference for you and/or your school district to buy at a discount. Come prepared to take advantage of the savings. NCTM has a number of new releases including some of the following:

✦ ***Making Sense of Fractions, Ratios, and Proportions: 2002 Yearbook*** (with classroom companion booklet). The 2002 Yearbook emphasizes that although fractions, ratios and proportions are pivotal concepts in middle school mathematics, the development and understanding of these concepts begins in the elementary school. This book shows the importance of proportional reasoning as a foundation for many applications of mathematics to real life and as an essential element of more sophisticated mathematics (for example, algebra). The 2002 Yearbook also features a professional development section.

The companion booklet presents activities that illustrate some of the ideas in the yearbook as well as activities that go beyond the content of the yearbook itself. This valuable material, with teachers' notes, comes complete with handouts for use directly with students—all designed to bring the yearbook to life in the classroom.

✦ ***The Navigations Series*** is a collection of texts that translate Principles and Standards into action. Each book in the series is rich with practical, teacher-tested activities and comes with a compact disk—Windows or Macintosh compatible—that offers valuable enhancements to the material in the book.

Navigating Through Algebra and *Navigating Through Geometry* will be available at the grade levels: K–2, 3–5, 6–8, 9–12.

✦ ***Practice-Based Professional Development for Teachers of Mathematics*** by Margaret Schwan Smith. The publication supports an active role for teachers in their professional development and recognizes the disequilibrium that teachers encounter as teaching practices change. Discussions of students' work, case studies and good instruction force participants to look at their own practice. This publication explores a specific type of professional development opportunity, which connects the ongoing professional development of teachers to the actual work of teaching. For more information: www.nctm.org.

Calgary Junior High Math Contest

Every year, MCATA supports the Calgary area math contest run by the University of Calgary. This year's top winner was Sarah Sun. The awards dinner was held at the University of Calgary, and as well as being treated to a lovely meal, we were fortunate to hear Dr. Renate Scheidler's interesting presentation, "How to Keep Our Secrets Safe".

Dr. Scheidler spoke to the students about her work in cryptography. As I listened, I couldn't help but think of all those kids making up secret codes and passing notes to their friends as soon as they knew how to write. What fun!

Calgary-area teachers who are interested in this event can contact Dr. Bill Sands at the University of Calgary. For more complete information about this event and to get some sample questions, go to www.math.ucalgary.ca/education/JrMath/index.html.

—Sandra Unrau

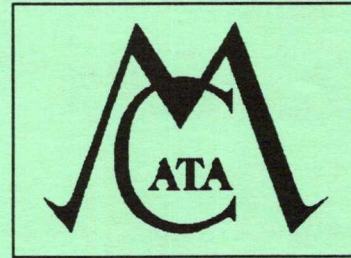
MCATA Executive 2002/03

Cynthia Ballheim	President, 2003 Conference Chair, 2002 Conference Cochair, NCTM Regional Services Director
Sandra Unrau	Past President, 2002 Conference Cochair
Elaine Manzer	Vice President
Len Bonifacio	Vice President
Helen McIntyre	Director of Professional Development, 2002 Conference Cochair, NCTM Representative
Donna Chanasyk	Secretary
Shauna Boyce	Director of Publications
Janis Kristjansson	Director of Special Projects
Doug Weisbeck	Treasurer
Klaus Puhmann	<i>delta-K</i> Editor
Robert Wong	Web Technician
Daryl Chichak	Membership Director
Indy Lagu	Mathematics Representative
Dale Burnett	Faculty of Education Representative
Deanna Shostak	Alberta Learning Representative
Chris Chambers	Southern Alberta Representative
Lorraine Taylor	Director of Awards and Grants
Carol Henderson	PEC Liaison
David Jeary	ATA Staff Advisor
Anne MacQuarrie	Newsletter Editor

For more information, please check our website at www.mathteachers.ab.ca.

MATHEMATICS COUNCIL OF THE ALBERTA TEACHERS' ASSOCIATION PRESENTS

SUMMIT in Canmore



ANNUAL CONFERENCE
OCTOBER 31 – NOVEMBER 2, 2002

Radisson Hotel & Conference Centre,
Canmore, Alberta

For further information and ongoing
updates, visit www.mathteachers.ab.ca

MCATA is the Mathematics Council of the Alberta Teachers' Association and its mission is to provide leadership to encourage the continuing enhancement of teaching, learning and understanding.

Conference Schedule

Thursday, October 31st, 2002

7:00PM-10:00PM Registration
7:00PM-9:00PM Displays
8:00PM-9:00PM Entertainment
9:00PM-10:30PM Wine & Cheese

Friday, November 1st, 2002

7:00AM-11:00AM Registration
8:00AM-4:00PM Displays
8:00AM-9:00AM Continental Breakfast
9:00AM-10:30AM **Keynote: Paul Cobb**
10:45AM-12:15PM Session
12:30PM-2:00PM Session
2:15PM-3:45PM Session
4:00PM-4:30PM AGM (All are welcome to attend)
8:00PM Entertaining Presentation with Dessert & Coffee

Saturday, November 2nd, 2002

8:00AM-9:30AM Registration
8:00AM-12:00AM Displays
7:30AM-8:30AM Continental Breakfast
9:00AM-10:00AM **Keynote**
10:15AM-11:45AM Session
12:00PM-1:15PM Session
1:30PM-2:30PM **Keynote: Tim Brady**
Prize draws

SPEAKER HIGHLIGHTS

Opening Keynote speaker: Paul Cobb, Ed.D., Professor of Mathematics Education, Department of Teaching and Learning Peabody College of Vanderbilt University. Paul's overarching research interests focus on students' mathematical learning as it occurs in the social context of the classroom. To this end, he conducts classroom design experiments in the course of which he investigates innovative instructional approaches in inquiry-based classrooms. All too often, students come to believe that mathematics in school is a depersonalized, rule-following activity that is divorced from their out-of-school experiences. This can be contrasted with an alternative approach that emphasizes reasoning, communication, and the use of notations and tools. Such an approach requires that the teacher initiates and guides the development of an inquiring culture in the classroom such that mathematical problems, interpretations, and solutions become explicit topics for discussion.

Closing Keynote Speaker: Tim Brandy has been engaged in math for more than 45 years with experience in Elementary through High School classrooms. He is the author of the book: "So What?" Teaching Children What Matters in Math. Tim Brandy invites teachers to step back and envision a more authentic approach to mathematics instruction - one that is relevant to children's worlds and reflective of their natural inclinations.

Also Sessions on
Mathematical Thinking, Mathematical Literacy,
Technology in Math,
Pure/Applied Math, Publisher Displays,
Draws & Prizes

In September check the math website for ongoing updates to the Program.

CONFERENCE REGISTRATION FORM

Name: (last) _____ (first) _____

Address: _____

City: _____ Province: _____ Postal Code: _____

Phone: (home) _____ (school) _____ (fax) _____

School Name: _____ Teaching Certificate #: _____

Email: _____

Grades Taught: ___ K-3 (Div I) ___ 4-6 (Div II) ___ 7-9 (Div III) ___ 10-12 (Div IV) ___ Post Secondary

Conference Fees:

You are entered in the Early Early Bird Draw if your registration is postmarked by June 30, 2002, and the Early Bird Draw if your registration is postmarked by September 15, 2002. Draws are for one night's accommodation at the Radisson Hotel and Conference Centre.

Register early to avoid disappointment. Space is limited for this conference. Last years conference sold out early.

Early Registration

(Postmarked by October 1st, 2002)

Current MCATA Member	\$100 _____
Student Member (Undergraduate)	\$35 _____
Non MCATA Member	\$130 _____
Retired MCATA Member	\$100 _____

Late Registration

(Postmarked after October 1st, 2002)

Current MCATA Member	\$150 _____
Student Member (Undergraduate)	\$85 _____
Non MCATA Member	\$180 _____
Retired MCATA Member	\$150 _____

Membership Fees

(Renew or New)

MCATA Regular	\$30 _____
MCATA 2 Year Regular	\$57 _____
MCATA 3 Year Regular	\$75 _____
Retired Teacher	\$25 _____
Student	\$5 _____

Total Fees \$ _____

Method of Payment:

MCATA does not accept School or Board P.O.'s, Mastercard or Visa. Payment must be made by money order or cheque. No post dated cheques will be accepted. Registration must be accompanied by full payment.

Please MAKE CHEQUES PAYABLE to:
Canmore Math Conference

Registration confirmation letters will be faxed to each participant. It is pertinent that you include the correct fax number on your registration form. It is also important that you indicate the grade/division you teach.

Full program and speaker schedule will be supplied upon check in at the conference. A sample of the speaker list and session descriptions will be available on line www.mathteachers.ab.ca in September.

Mail Registrations to:

Patricia Chichak 1826-51 Street, Edmonton, AB T6L 1K1.

For further registration information, contact Patricia at (780)450-1813 or mathguy@telusplanet.net. More registration forms can be downloaded from the MCATA website www.mathteachers.ab.ca

Conference Cancellation Policy

If it becomes necessary for you to cancel your registration, please contact Patricia Chichak by phone: (780)450-1813, fax: (780)469-0414, or mail at 1826-51 Street, Edmonton, AB, T6L 1K1 in writing prior to October 11, 2002. A \$40 administration fee will be levied on refunds issued prior to this date. No refunds will be issued after this date. NSF cheque fee: \$20.00

Accommodation:

The Radisson Hotel & Conference Centre Canmore is holding a block of guestrooms at a special rate of \$81.00 per night based on Single or Double Occupancy. This special rate does not include 5% Alberta room tax or 7% GST. The block will be held until September 30, 2002. Please ensure you have made your reservations prior to this date. To book your reservation, call (800) 263-3625. An accommodation reservation form is available at the MCATA website [@www.mathteachers.ab.ca](http://www.mathteachers.ab.ca)