



Mathematics Council NEWSLETTER

The Alberta Teachers' Association

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September 2014

President's Message

Welcome back from your summer break. It doesn't seem that long ago that I was writing my message for the spring issue of this newsletter.

This will be my last president's message. It seems like just last week I was stepping into the president's role, with great trepidation. Although times have been challenging—with proposed changes to curriculum, negative press about teachers, and the perceived lack of structure and teaching of basic skills in math—I have learned a lot and have had the opportunity to work with incredible people.

Thank you to all my executive members and the ATA staff for making my job much easier. Although I am stepping down as president, I will continue to serve on the Mathematics Council (MCATA) as past president.

I look forward to seeing everyone at the annual conference in Calgary on October 17 and 18.

Remember: do math and you can do anything!

Marj Farris

From the Editor's Laptop

Women in mathematics is a topic that continues to crop up. Why are there fewer women than men in mathematics? What can we do to make mathematics more accessible? While I haven't managed to solve this dilemma, I would like to highlight two women who have entered this field successfully.

The first is Maryam Mirzakhani, who recently received the Fields Medal (the International Medal for Outstanding Discoveries in Mathematics) for her work in complex geometry. She is the first woman to receive this award since its creation in 1936. To learn more, go to www.bbc.com/news/science-environment-28739373.

The second is our own Marj Farris. In her role as MCATA president, she has done everything from putting together a letter for Alberta Education concerning a new initiative to coming up with the best math T-shirt slogans ever (such as " π rates of the Pythagorean" and "There will be no crying in math class"). Her up-to-date knowledge of issues in the world of mathematics is inspiring. Although she will no longer lead us as president, she will remain on the council as past president and will take on new work as a member of the Affiliate Services Committee of the US-based National Council of Teachers of Mathematics (NCTM). She also will remain active in support positions in our more northerly schools. Way to go, Super Math Woman!

Let us all—great math women and men—head into this new school year inspiring as many new mathematicians as we can!

Karen Bouwman

TERM Meetings for 2014/15

Teachers of Mathematics in the Edmonton Region (TERM) will meet on September 22, December 1, March 2 and May 11 during the 2014/15 school year. The meetings are at 5:00 PM at Paul Kane High School in St Albert. For more information, contact Donna Chanasyk at donnajc@telus.net.



Alberta Education Update

In 2008, schools across the province began implementing the current K–9 mathematics program of studies. To ensure clarity of expectations, Alberta Education has updated the program of studies, effective September 1, 2014. Several supports, including the teacher support resource *Alberta K–9 Mathematics Achievement Indicators*, have also been updated. These are available at <http://education.alberta.ca/teachers/program/math.aspx>.

Some specific outcomes for Grades 1–5 have been updated to clarify expectations. These clarifications are as follows:

- Students are expected to recall, understand and apply number facts, including multiplication facts.
- “Students investigate a variety of strategies and become proficient in at least one appropriate and efficient strategy that they understand. Strategies may include traditional algorithms such as long division and vertical addition; however, specific strategies are not prescribed in the outcomes” (p 9).
- “The teaching professional has the flexibility and responsibility to meet the learning needs of each of his or her students” (p 9). Programs of study identify *what* students are to learn; teachers determine the *how*.

Other available supports include the following:

- *Facts About Mathematics Education in Alberta for Parents* (http://education.alberta.ca/media/8394307/q-a_par_eng.pdf)
- *Bulletin for Teachers: Helping Parents Understand the “Alberta Mathematics Kindergarten to Grade 9 Program of Studies”* (http://education.alberta.ca/media/8394320/q-a_teach_eng.pdf)
- Fact sheets for parents of K–9 students (<http://education.alberta.ca/teachers/program/math/parents/links.aspx>), which describe key clarifications to the math program
- Fact sheets for parents of high school students (<http://education.alberta.ca/teachers/program/math/parents/links.aspx>), which explain the three high school course sequences
- FAQs for parents (<http://education.alberta.ca/teachers/program/math/parents/faq.aspx>), students (<http://education.alberta.ca/teachers/program/math/students/faq.aspx>) and educators (<http://education.alberta.ca/teachers/program/math/educator/faq.aspx>), which answer common questions about learning math in Alberta
- Videos (<http://education.alberta.ca/teachers/program/math/videos.aspx>) that show how elementary students communicate, solve problems, use technology and apply strategies in mathematics; that outline each of the seven mathematical processes; and that promote awareness of the mathematics program
- Supports for teachers, including programs of study (<http://education.alberta.ca/teachers/program/math/educator/progstudy.aspx>), authorized resources ([\[program/math/educator/resources.aspx\]\(http://education.alberta.ca/teachers/program/math/educator/resources.aspx\)\), fact sheets and useful links \(<http://education.alberta.ca/teachers/program/math/educator/links.aspx>\), and other support materials \(<http://education.alberta.ca/teachers/program/math/educator/materials.aspx>\)](http://education.alberta.ca/teachers/</div><div data-bbox=)

If you have any questions about the mathematics programs of study, please contact Amaya Ortigosa, team leader, Mathematics K–9, at 780-422-5079 or amaya.ortigosa@gov.ab.ca; Kris Reid, team leader, Mathematics 10–12, at 780-427-3588 or kris.reid@gov.ab.ca; or Diane Stobbe, French team leader, Mathematics K–12, at 780-427-7489 or diane.stobbe@gov.ab.ca.

PEC Report

Given the ATA’s successful partnership with Finland, Alberta math teachers might be interested to know that we have entered into a research partnership with Norway. The project is called Mindful Leadership for Teaching and Learning in Mathematics. The goal is to establish a network of schools in Canada and Norway that are committed to improving student learning in mathematics through mindful leadership. Evidence shows that educational development is most effectively achieved through innovations undertaken by networks of schools committed to building the capacity of teachers, rather than through system edicts or policy directives. A particular focus will be equity, which is a challenge in mathematics, given its history of being viewed as a mechanism for sorting and ranking students. For more information, contact J-C Couture at 780-447-9462 (in Edmonton) or 1-800-232-7208 (toll free in Alberta).

Carol Henderson

Letter from NCTM

On behalf of NCTM, I would like to recognize Marj Farris for her upcoming appointment to the Affiliate Services Committee. NCTM’s committees and editorial panels are central to the council’s work, second only to the board of directors in their leadership role in NCTM. Marj’s appointment is recognition of her significant contributions to and leadership in mathematics education.

We appreciate your support in allowing Marj to assume this important role in NCTM and serve her peers in advancing the highest quality mathematics education for all students.

*Sincerely,
Diane J Briars
President-Elect, NCTM*

C³: Current Commentary by Council

Alberta Makes Changes to the Mathematics K–9 Program of Studies

Effective September 2014, Alberta teachers of Grades 1–5 will have a slightly modified mathematics program of studies to guide their instruction.

Parents have expressed concerns about the perceived lack of mastery of basic facts and traditional algorithms by children as they go through the Alberta school system. In April, approximately 250 parents rallied outside the legislature to protest the province’s math program and the methods used to teach math. About 16,000 people signed a petition asking the government to go back to the basics and fix Alberta’s math curriculum. Then minister of education Jeff Johnson insisted that the current curriculum covers math basics, but parents were not convinced.

In response to these concerns about “New Age” approaches to teaching math, Alberta Education has released an updated program of studies to clarify the intent of the mathematics program. This document explicitly states that students must be able to demonstrate recall of basic facts and to use and describe mental mathematics strategies. Parents have also been confused about the need for students to use a variety of strategies to perform basic arithmetic operations. Although the 2007 curriculum does not require students to know and apply more than one efficient strategy, many of the teaching resources ask students to master several different strategies. The updated program of studies explicitly states that although students may “investigate a variety of strategies,” they need to “become proficient in at least one appropriate and efficient strategy” (p 9), which may or may not include traditional algorithms.

Alberta Education has indicated that the government’s role is to determine what specific mathematics concepts students need to learn and when. How students are taught these concepts is the responsibility of the teacher. As the program of studies states, “specific strategies are not prescribed in the outcomes” (p 9).

So, is this clarification of Alberta’s K–9 mathematics program of studies a move to “back to the basics”? Will these changes satisfy the naysayers who insist that the current program of studies is faulty and that it is failing our students? Will teachers return to “traditional methods” of teaching and use timed tests and flash cards to drill students on basic facts? Or will the research-based philosophy of the program of studies prevail? Only time will tell.

Debbie Duvall

Conference 2014

“A Bridge to the Future”

October 17 and 18

Coast Plaza Hotel and Conference Centre,
Calgary

The annual MCATA conference will be held in Calgary on October 17 and 18. This year’s theme is “A Bridge to the Future.” Listen to a variety of speakers present ideas on the future of mathematics and mathematics education, and find out how we are moving education into the 21st century.

For more information about the conference and to register, go to www.mathteachers.ab.ca/information-and-registration.html.

Keynote Addresses

Bodies in Motion—Brains in Motion: Moving Education in the 21st Century Learning

Hear from Dieter Breithecker, Europe’s foremost expert on posture, motion and ergonomics as they relate to social, behavioural and learning patterns, and learn how adequate movement promotes both physical development and academic progress.

Mathematics: Bridging Past Present Future

In what ways has mathematics served as a bridge between past and present, and how might it serve as a bridge from the present to the future? Florence Glanfield will explore questions such as, Why do we teach the mathematics that we do? Who gets to decide what mathematics we teach? Who gets to decide how we teach what we teach? What does the future hold? What mathematics might be needed in the future?

For more information on the keynote addresses and for speaker bios, go to www.mathteachers.ab.ca/keynote-speakers.html.



Reminder

Bring back any past MCATA conference bag and receive a special gift!



Math Contest Winners

2014 Edmonton Junior High Mathematics Contest

A total of 662 students from both the public and the Catholic districts participated in the 36th annual Edmonton Junior High Mathematics Contest, which consists of multiple-choice and short-answer questions.

The top 50 students are recognized at an annual banquet held the last week of May. Parents and sponsoring teachers are also invited.

The key sponsors of the contest are IBM, the Association of Professional Engineers and Geoscientists of Alberta (APEGA), MCATA and ConocoPhillips Canada.

For more information about the contest, the solutions and the contest winners, go to www.mathteachers.ab.ca/edmonton-junior-high-math-contest.html.

2014 AHSMC

Part II of the 57th Alberta High School Mathematics Competition (AHSMC) was written on February 5 by 76 students representing 17 schools. A list of fellowship winners and top achievers can be found at www.mathteachers.ab.ca/alberta-high-school-mathematics-competition.html.

MCATA Grants

MCATA grants are available for professional development, for research into math education, or for other initiatives that promote and enhance mathematics education in Alberta.

Grants of up to \$500 are awarded twice each year. Applications should detail the nature of the project, those participating and benefiting, and how the project incorporates diversity in regional development opportunities for teachers. The grants are intended to assist in covering the cost of facilitating professional development. Consider applying for this grant to cover your transportation costs to and from the MCATA annual conference.

For more information or to apply, go to www.mathteachers.ab.ca/mcata-grants.html or contact Carmen Wasylynuik, director of awards and grants, at carmenbt@telus.net.

May 2014 MCATA Executive Meeting

The last meeting of the MCATA executive for the 2013/14 school year was held in May, with the following agenda items:

- Dr Arthur Jorgensen Chair Award (no applications submitted)
- May symposium
- Plans for the 2014 annual conference in Calgary
- Plans for the 2015 Mathematics Council and Science Council joint conference in Edmonton

Some executive members attended the meetings or conferences of other groups, which helps MCATA network with other math educators. The following are some of those events: the conferences of the NCTM and the National Council of Supervisors of Mathematics (NCSM), the Curriculum Mathematics Study Group, the north-south postsecondary meeting, presentations on the Edmonton and Calgary junior high math contests and the Alberta High School Mathematics Competition, Edmonton Regional Learning Consortium events, the ATA's Annual Representative Assembly (ARA), and Edmonton Public Schools and Edmonton Catholic Schools PD sessions.

MCATA Fall Symposium

Understanding the Numeracy Benchmarks October 16, 2014

Coast Plaza Hotel and Conference Centre, Calgary

SHELLY Wells will provide an overview of Alberta Education's numeracy benchmarks. These benchmarks are an anchoring component of curriculum redesign. Participants will gain a better understanding of what numeracy is and how it is different from mathematics, as well an understanding of the implications of the benchmarks for teachers and students.

For more information and to register, go to www.mathteachers.ab.ca/2014-fall-symposium.html. The registration deadline is **October 9**.

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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.

Mathematics: A Bridge to the Future

ANNUAL CONFERENCE OCTOBER 17-18, 2014
Registration Begins Thursday Evening October 16, 2014
The Coast Plaza Hotel & Conference Centre
1316-33 Street NE, Calgary, Alberta



***** To register online Visit our website 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.

Come join the Mathematics Council of the ATA in celebrating 53 years of providing leadership to encourage the continuing enhancement of teaching, learning and understanding mathematics at our annual conference "Mathematics: A Bridge to the Future" at the Coast Plaza Hotel & Conference Centre, Calgary, Alberta.

You will have an opportunity to pick up your conference registration package at the Calgary Coast Plaza Hotel & Conference Centre conference registration desk from 7:00PM-10:00PM Thursday, October 16th, and from 7:00AM - 11:00AM Friday, October 17th, 2014.

In your registration package you will find your nametag. Wear your name tag at all times. It ensures your entrance to your chosen sessions. Your registration includes a ticket for the Friday Buffet Breakfast, Friday Lunch, and Saturday Buffet Breakfast.

The Mathematics Council will be offering a Saturday only registration package for teachers who are unable to attend on Friday. This Saturday package will include breakfast, a keynote speaker, and two Saturday sessions. The registration desk will be open on Saturday, October 18 from 7:00AM-9:00AM.

Conference session times are as follows:

Thursday, October 16, 2014	7:00PM-10:00PM	Registration Only
Friday, October 17, 2014	10:00AM-7:00PM	Displays Only Open Friday
Friday, October 17, 2014	7:00AM-11:00AM	Registration
	7:45AM-8:30AM	Breakfast
	8:30AM-9:00AM	Opening Remarks
	9:00AM-10:00AM	Keynote Speaker
	10:15AM-12:00PM	Session #1
	12:00PM-1:00PM	Lunch
	1:15PM-2:15PM	Session #2
Saturday, October 18, 2014	2:30PM-3:30PM	Session #3
	3:45PM-4:45PM	AGM
	5:00PM-7:00PM	Wine & Cheese Social: Games Night to Follow
	7:00AM-9:00AM	Registration
	7:45AM-8:30AM	Breakfast
	8:30AM-9:00AM	Opening Remarks
	9:00AM-10:00AM	Keynote Speaker
	10:15AM-11:15AM	Session #4
	11:30AM-12:30PM	Session #5

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

You will be entered in the Early Early Bird Draw if your on line-registration is completed by **September 15, 2014** and/or if your registration is postmarked by **September 16, 2014**. Draws are for one night's accommodation at **The COAST PLAZA HOTEL and CONFERENCE CENTRE 1316-33 STREET NE CALGARY**.

Conference Fee Includes: Friday breakfast, lunch, Friday Night Social and Saturday breakfast. Saturday registration includes Saturday breakfast only.

Conference registration fee does not include accommodations.

Bring your MCATA bag from last year to receive a bonus gift.

For delegates wishing to pay online, a Visa or MasterCard Payment option will be available to you by registering on line at our website www.mathteachers.ab.ca or at <https://event-wizard.com/MCATAConference2014/0/register/>.

For delegates wishing to submit payment by cheque or money order, please make cheque or money order payable to: Math Council ATA and send to: 1826 - 51 Street, Edmonton, Alberta, T6L 1K1

Accommodation The Coast Plaza Hotel & Conference Centre, Calgary is holding a block of guest-rooms at a special rate of \$144.00 per night. This special rate does not include applicable taxes (currently 9.0%). For room availability, please book your reservation by calling **1-403-248-8888**. Let them know you are attending the conference for the Math Council of the ATA. The block will be held until September 15, 2014. **Ensure you have made your own hotel reservations prior to this date.**

Room Rates:

Room Type	Sgl	Dbl	Trp	Quad
Comfort	\$144	\$144	\$159	\$174
Superior	\$169	\$169	\$184	\$199
Jacuzzi	\$224	\$224	\$239	\$254
Executive	\$244	\$244	\$259	\$274

CONFERENCE CANCELLATION POLICY

If it becomes necessary for you to cancel your registration, please cancel in writing by fax (780)469-0414 or mail (1826-51 Street, Edmonton, AB T6L 1K1) to the MCATA Conference Registrar prior to **October 1st, 2014**. A \$50 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

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

In registering for this specialist council conference, you are voluntarily providing your personal information and consenting to its collection, use and disclosure for all purposes connected with your attendance at this conference and future conferences & symposiums.

Read the categories below and select the box that applies to you. (Note: MCATA memberships are non-refundable)

Current MCATA Member (must be a member at time of registration)
\$395.00 CAD

Non MCATA Member (includes a one-year MCATA membership)
\$425.00 CAD

Saturday Only Current MCATA Member (must be a member at time of registration)
\$165.00 CAD

Saturday Only Non-MCATA Member (includes a one-year MCATA membership)
\$195.00 CAD

Retired MCATA Member (must be a member at time of registration)
\$395.00 CAD

Student Member (Undergraduate, provide Student ID No)
\$225.00 CAD **Student ID No (if applicable)** _____

***Persons Not Eligible for Specialist Council Membership**
\$790.00 CAD

***Persons Not Eligible for Specialist Council Memberships** (Central office staff who did not elect active ATA membership cannot be members of specialist councils. The superintendent, deputy superintendent of school jurisdictions and teachers in charter, federal or private schools must be ATA Associate members in order to qualify for specialist council membership).

In making application for membership to MCATA, you are voluntarily providing your personal information and consenting to its collection, use and disclosure for all purposes connected with your participation as a member of the Mathematics Council.

Extra meal tickets: (Available Until October 4, 2014) **Friday Breakfast \$32** ___ **Friday Lunch \$35** ___ **Saturday Breakfast \$32** ___

Total Fees \$ _____

What type of Conference Booklet would you like? ___ **Hard Copy** ___ **Electronic Copy** If you choose a hard copy version, a hard copy will be in your registration package. If you choose electronic, you will be able to download a copy from the MCATA website on Thursday October 17, 2013.