

From the Editor's Pencil

What Are We Teaching?

Recently, a former student came to me with an assignment that had been handed out to all the members of the Grade 7/8/9 Paced Learning Program class. The assignment read as follows:

You will create a NEW playground for your community.

You only have 3000 sq feet to work with, and you need to be very creative.

Your playground MUST have a certain THEME and NAME.

You must choose a specific type of ground covering and use it to cover the 3000 sq feet you are using. You must have a border of 3000–3500 sq feet. Do not be smaller or bigger.

Try to make your playground as unique and creative as you can.

Marks are awarded for creativity.

You may spend as much as you want, but you have to keep track of what you spend on a separate sheet of paper.

All costs associated with the playground structures must be accounted for.

Marks will be awarded to the assignments that are as close to “real costs” as possible.

BE CREATIVE

MAKE IT INTERESTING

MAKE IT COLOURFUL

MAKE IT REAL

MAKE IT NEAT

USE A RULER

USE A RULER

USE A RULER

FOLLOW DIRECTIONS!

Mark is out of 100:

20 neatness

20 realistic/measurements [sic]

10 colour

10 price list

40 creativity

The assignment was presented as an area problem, and the students were given 10 days to complete it. No external resources, such as catalogues or measurements for various pieces of playground equipment, were provided. Although graph paper was provided, the students were instructed that the squares “don’t mean anything.”

When I first read the assignment, several things immediately popped out at me, both mathematically and grammatically, and I questioned the student to determine how much the student understood. I found that the student could not finish the assignment without intensive parental involvement, even though it was to have been completed in class. I was dismayed.

After my initial reaction, I began to wonder if the students in my Grade 3 class could find some of the errors in the assignment. I presented part of it to them the next day.

Almost every child identified *feet* as an error. We checked with my 24-year-old son to find out if he had learned about feet in school in the 1980s, and he assured us that he had not.

The second problem was more subtle and required closer examination to find, but my students eventually discovered that the border (or perimeter) of the playground was to be measured in square feet. They all chorused, “You don’t measure perimeter in squares!”

It is incumbent upon us all, as committed math educators, to be aware of what is being presented to our students under the guise of math learning. When we find things like this assignment, are we not just as guilty of perpetrating a wrong against the students if we do nothing to assist those teachers who cannot see the unreasonableness of the activities and assignments they present?

—Anne MacQuarrie

President's Message

In the next year or so, the Mathematics Council of the Alberta Teachers' Association (MCATA) and the Alberta Teachers' Association (ATA) will be intensively involved in responding to the new Western and Northern Canadian Protocol (WNCP) for mathematics and in the creation of a new curriculum for Alberta.

MCATA also wants to broaden its contact with members who are seeking more active involvement, especially those from the north, far south and rural areas of Alberta. We always need people who are interested in looking at mathematics beyond the grades they teach. If you are always looking at the curricula for lower and higher grades to see how ideas develop over time, you have the kind of wider perspective we are seeking. If you wish there were others in your school as interested in talking math as you are, we would also like to talk to you. MCATA seeks to represent the views of teachers of mathematics at all levels from around the province.

If you are interested in provincial opportunities to get involved in curriculum discussions, consider adding your name to the ATA's Curriculum and Student Evaluation Name Bank. An application form has been included with this issue.

If you would like to be involved in MCATA discussions, please e-mail me at jkristja@shaw.ca, and I will create a contact list to use for future discussions.

I look forward to hearing from you!

—Janis Kristjansson



Alberta Education Update

Alberta Apprenticeship and Industry Training is preparing to look at the skill sets required for each trade. This will help to ensure success on the job and to work toward a more standardized system in the selection of educational requirements for entry into the trades.

Please visit LearnAlberta.ca (www.learnalberta.ca) to keep up to date on the newest additions to the online environment. Don't forget to check out the Preview Zone to see what is coming from the Learning Technologies Branch. Also, *The Learning Equation Math 11* and *The Learning Equation Math 12* are available on CD-ROM through the Learning Resources Centre (www.lrc.education.gov.ab.ca).

Thanks go to all who have participated in consultations on revisions to the WNCP K-9 Common Curriculum Framework (CCF). After incorporating feedback from December's Grades 8 and 9 consultations, the Curriculum Branch and the French Language Services Branch held two days of consultations on the entire K-9 CCF document at the end of February. Following the advice of the Mathematics Advisory Committee, these branches will establish a Mathematics Roundtable, with representatives from all stakeholder groups, to discuss the options for the structure and content of high school mathematics.

The Learning and Teaching Resources Branch has completed its junior high mathematics facilitator workshops. The Regional Consortia will continue to offer these sessions on best practices in mathematics education for the rest of this school year and into the next. Elementary mathematics facilitator workshops are scheduled to begin in the fall.

Publishers have started developing new resources to support the implementation of the revised Alberta programs of study for mathematics. Publishers are working closely with Alberta Education to ensure alignment with the outcomes and philosophy of the WNCP K-9 CCF for mathematics.

Conference 2006: Call for Proposals

Attention math teachers and leaders! MCATA is now accepting speaker proposals for Conference 2006: “Pathways to Understanding.” The conference will take place October 19–21 at the Jasper Park Lodge in Jasper.

With the theme “Pathways to Understanding,” we hope to highlight the many ways mathematical understanding can be nurtured at all grade levels. To this end, we encourage proposals from classroom teachers and teacher leaders who have developed ways to enhance the mathematical understanding of students.

One speaker from each session will receive a free conference registration. If your proposal is accepted, we will e-mail you a confirmation notice and a speaker contract. You will also receive confirmation of your conference registration; however, you will be responsible for making your own travel and accommodation arrangements. Because of scheduling difficulties, we are unable to accommodate requests to speak on a particular day.

A speaker proposal form has been included with this issue and is also available at www.mathteachers.ab.ca.

PSAC Grant Program for Schools in Small Communities

In 2006, the Petroleum Services Association of Canada (PSAC) will be giving away \$10,000 in school grants! We invite teachers to apply for one of 10 grants of \$1,000 each. Please promote this program to teachers in your association, specialist council and community.

Any teacher at a K–12 school in a community with a population of 15,000 or less can apply for a grant. The funds must be applied to a project or purchase relating to math, science, computers, or the oil and gas industry.

The deadline for applications is April 28. Full details and application forms are available on the PSAC website (www.pfac.ca) under What’s New at PSAC, or by calling (403) 264-4195 (in Calgary) or 1-800-818-7722 (toll free).

PSAC hopes to receive many applications from Alberta teachers in 2006. Please feel free to contact me at (403) 781-7388 or dmcadam@psac.ca with any questions.

—Debra McAdam, Manager,
Communications and Member Relations, PSAC

MCATA Awards

The deadlines for applying for the two annual MCATA-sponsored awards are fast approaching!

The Dr Arthur Jorgensen Chair Award is given to a student teacher who has shown outstanding academic achievement and commitment to math education. Were you lucky enough to have such a student teacher working with you this year? Encourage him or her to apply. The deadline for applications is April 30.

The Alberta Mathematics Educator Award is presented to a maximum of three educators who have demonstrated leadership in math education in or out of the classroom. If you know an educator who has done so, nominate him or her for this award. The deadline for nominations is August 1.

The forms and detailed descriptions of the awards are available at www.mathteachers.ab.ca.



2006 Census Teacher's Kit

May 16 is Census Day in Canada. Approximately 31 million people in 12.7 million households and all agricultural operations will count themselves in by completing and returning their census questionnaires online or by mail.

Statistics Canada has developed the 2006 Census Teacher's Kit for use in elementary, junior high, secondary and adult classrooms across the country. Students play an important role as future respondents to the census. Some students may even help their parents complete the questionnaires for their households if their language skills in English or French are stronger than those of their parents.

The kit contains eight teacher-ready activities and a guide to provide the following:

- An explanation of why Canada conducts a census and how census results benefit society
- An introduction to census data as an information source for school papers and projects
- An alternative approach to studying math, geography, English, French and social sciences

A fun colouring book and a game placemat for younger students are also included.

The activities have been prepared with the help of a professional educator and have been classroom tested in English and French for suitable content and grade level. They are appropriate for English, math, theatre arts, art, social sciences, geography, history, family studies and physical education. Suggested grade levels are indicated on each activity, and all necessary tables, charts, graphs and data are included. The kit contains activities on both the Census of Population and the Census of Agriculture.

The kit is available free to teachers. Each teacher will receive one kit and will need to photocopy the student handouts. A separate adult basic education (ABE)/literacy kit is also available. The kit can even be passed on to other teachers or used in other classes.

For more information, go to www19.statcan.ca/11/11_000_e.htm.

Remember to count yourself in on Census Day—May 16!

Spring Leadership Symposium Teaser

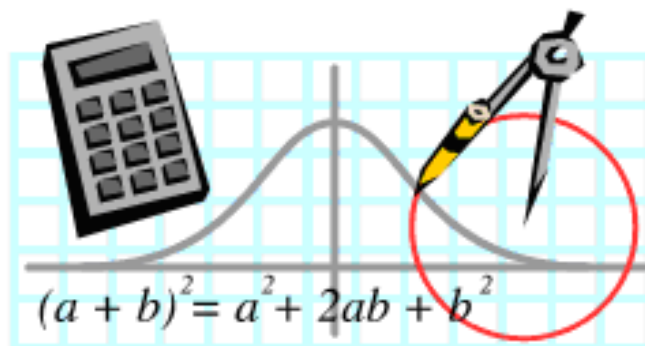
Algebra is a darling of the secondary school curriculum, for a number of reasons: it is highly connected with other facets of mathematics; it is a universal tool in mathematics; it offers a move from arithmetic to mathematics; teachers like teaching it; and, one of the most pervasive reasons cited, everybody needs to know it. However, the algebraic thinking and skills with which students leave secondary school have been criticized as being nothing more than rote symbolic manipulation.

With the proposed changes to the Alberta program of studies, all mathematics teachers, including elementary teachers, need to better understand algebra.

At this year's Spring Leadership Symposium, Elaine Simmt of the University of Alberta will take us through a series of activities to explore algebra for teaching. The session will offer structured opportunities to consider the kinds of knowledge and knowing occasioned by various classroom activities, and participants will examine the progression of algebra throughout the K-12 curriculum.

This symposium is a must for curriculum leaders anticipating the needs of the teachers with whom they work as the new curriculum is phased in.

The symposium will be held May 5 at the Calgary Winter Club.



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