

Points & Angles

Newsletter of the Metropolitan Mathematics Club of Chicago
Volume XLV No. 4 Dec. 2015

Thanks For The Memories: What I've Learned From 60+ Years Of Teaching, Writing, and Publishing About Mathematics

December Speaker Dale Seymour



From I-90 & Southbound I-294: Exit at I-190 West to O'Hare; Exit onto North Mannheim Rd.; Take Mannheim Rd. North 2.25 miles.

From Northbound I-294: Exit at West Touhy Ave.; Take Touhy Ave. to Mannheim Rd.; Turn right on Mannheim Rd.

Public Transit: Take the CTA Blue Line to the Rosemont Bus Terminal; Take Pace Bus #223 to Touhy Ave. & Lee Rd.; Walk East on Touhy to Mannheim Rd.

Friday, December 11, 2015

5:30 PM Doors Open, 6:00 PM Social Hour
7:00 PM Dinner & Talk

Fountain Blue Banquets & Convention Center

2300 Mannheim Rd., Des Plaines
(847) 298-3636
\$43 for Members, \$49 for Nonmembers

Reserve by Noon, Monday Dec. 7

Online at www.mmccchicago.org
or by phone at (630) 907-5023

See page 7 for special dinner reservation instructions for our beef meal or other options!

Creative Publications and Dale Seymour Publications--those names are synonymous with high quality supplemental educational materials that teachers and mathematics educators use, even to this day, to make the teaching and learning of mathematics more engaging and more mathematically rich for both their students and themselves. A former junior high and high school mathematics teacher, Dale Seymour, author and publisher of numerous math enrichment publications, will talk about highlights of his teaching and publishing careers. Seymour attended more than 1000 math conferences and workshops where he picked up many ideas that proved effective in the classroom. He will also show a number of math sculptures he has created during his retirement.

Beginning with problem solving materials and books on geometric constructions and line designs, Dale Seymour, founded Creative Publications in 1968 to provide teachers with supplemental materials that would help make their teaching, and their students' learning of mathematics, more enriched. Seymour grew the company and its product line throughout the eleven years he was with Creative Publications. In 1979, Seymour left Creative Publications and started Dale Seymour Publications (DSP), another supplemental educational publishing company that focused on mathematics materials, but also developed supplemental materials in science, art, and language arts. As Dale Seymour Publications' President and Chairman of the Board, Seymour grew DSP to become one of the most highly respected and admired mathematics education publishing companies in the 1980s and 1990s. Its reputation as such continues to this day.

Dale Seymour taught mathematics to students in grades 7-12 for fourteen years in Nebraska, Colorado, and California. He has served on the National Council of Teachers of Mathematics' (NCTM) Commission on Standards for School Mathematics as well as the California State Model Curriculum Standards Committee. Seymour has authored or co-authored 130 books and designed more than 170 educational products. He has spoken at over 1000 math conferences or workshops. In 1993 Seymour was awarded the National Council of Supervisors of Mathematics' (NCSM) Glenn Gilbert Award for leadership in mathematics. Imaginative, innovative, insightful, inventive, ingenious, and visionary are words that describe Dale Seymour.

Come learn from this great leader in mathematics education! Make your reservation today for the December 11th dinner meeting. This is a presentation you won't want to miss!

Points From The Interior

BY PATRICIA TRAFTON

With Halloween now past, and as the days grow shorter and leaves continue to fall from trees, Thanksgiving appears in the not-too-distant future. A time set aside to give thanks, I think about the many people I have been blessed to know and who have been instrumental in my life, and specifically for this article, in my life as a mathematics educator.

The first thoughts of pursuing mathematics as a career came during my senior year of high school. Mathematics was my second favorite subject in high school, even though I didn't receive my first A in a math class until my senior year when I took a semester of Trigonometry and a semester of Analytic Geometry. I chose mathematics as my college major because growing up in San Jose, CA, in Silicon Valley, career opportunities in computer-related fields were exploding, including for women.

On my first day at Santa Clara University, I walked into the Combined Science Department office to explain that there had been a mistake on my registration; I was not a Combined Science major but a Computer Science major. I was directed to go talk with the Mathematics Department Chairman about this situation. Shortly after introducing myself to Gerald Alexanderson, the Chairman of Santa Clara Univ.'s Mathematics Department, David Logothetti walked into the Math Dept. office. Alexanderson asked Logothetti to come in his office, explained my situation to him, and asked Logothetti if he would please take me on as his advisee. This would turn out to be a pivotal moment in my life.

Logothetti gave me my first opportunity to teach during the winter quarter of my freshmen year. Scheduled to speak at the Greater San Diego Mathematics Conference, he asked me to teach his freshman Calculus class for two days. This was the same calculus class I had taken from him in the Fall quarter. Nervous, but honored to be asked to be his substitute, I said yes. I prepared for an entire week and when it was time my stomach was full of butterflies but once I began to teach, the butterflies disappeared. I couldn't believe it. I felt comfortable and at ease teaching the class.

For the next four years, I would take several more math classes from Dave Logothetti. From Dave, I learned what it meant to be actively involved in a professional organization. Dave encouraged me to become a teacher and connected me with Barbara Pence, a mathematics education professor at San Jose State University (SJSU). During my year of education coursework at SJSU for my California teaching credential, I met a woman who was a neighbor of Dale Seymour. She and Barbara were co-teaching a problem solving course I took at SJSU, and one day after class she mentioned that Dale was looking for someone to work with him part-time on creating materials for a new book he was writing called Geometric Designs. I immediately contacted Dale and began a seven-month job learning and using Adobe Illustrator software to create the designs for his new book. Four months into this job, on Good Friday, Dale offered me a full-time job. Needless to say that was a great Friday!

Dale Seymour is another person who has had a major impact on me and my life as a mathematics educator. For four and a half years, I worked at Dale Seymour Publications (DSP) as the Mathematics Specialist and Exhibits Manager. Dale was instrumental in getting me involved in math conferences beyond just being an exhibitor. He encouraged me to give presentations at conferences and helped me do so by allowing me to use his presentation about tessellations as a starting point. I met hundreds of mathematics educators from around the United States and from other countries, dozens of whom wrote books or created products that were published by DSP. One of those authors was Paul Trafton.

Marrying Paul brought me to the Midwest, first to Iowa, then to Illinois. A professor of mathematics education, most notably at National College of Education (now National Louis University) and later at the University of Northern Iowa (UNI). My knowledge of how to teach mathematics grew exponentially because of Paul.

Both Dale and Paul introduced me to scores of people who were active in NCTM, in one leadership role or another. One group of those leaders were some of Paul's colleagues in the Mathematics Dept. of the University of Northern Iowa. Ed Rathmell, Diane Thiessen, Larry Leutzinger, Jack Wilkinson, Joel Haack, and Glenn Nelson, in addition to

Points From The Interior Continued

Paul, taught me much about the teaching of elementary and middle school mathematics and introduced me to NCTM Standards-based middle school curricula such as the Connected Mathematics Project (CMP) and Mathematics in Context. Meanwhile, my knowledge of teaching and learning secondary mathematics flourished with the help of another group of leaders, the Mathematics Education faculty at the University of Iowa. Rose Zbiek and Gina Foletta expanded my understanding of the teaching of algebra and geometry, respectively. Doug Grouws helped me develop different perspectives about the role of homework, and Harold Schoen and Eric Hart introduced me to the Core Plus Mathematics Project (Core Plus) curriculum, another NCTM Standards based curriculum, but for high school.

In addition to the UNI Math Ed faculty, two teachers at the UNI Laboratory School were instrumental in my early development as a teacher. During the 1994-95 school year, I worked as a long-term sub in an eighth grade math class and a high school Geometry class while Earl Ockenga worked with Department of Defense schools. This gave me my first experience as an 8th grade teacher and allowed me to learn about and teach from another NCTM-Standards-based curriculum, the Interactive Mathematics Project. During the same year I also volunteered in Merri Schroeder's Algebra I class.

My three years teaching math at Beckman High School in Dyersville, Iowa, were ones of incredible growth and creativity as a teacher. As the only Geometry teacher, I was given a lot of freedom by my principal and vice principal to teach the course. I implemented a discovery approach and worked with my colleagues to build the mathematics program. My vice principal, Wayne Wilgenbusch, was particularly helpful in growing my political acumen as my Math Dept. colleagues and I prepared presentations to the faculty, School Board, and larger Beckman H.S. community about our adoption of more discovery based materials such as Core Plus.

My move to the Chicago area brought additional growth as a high school teacher. My two years at Evanston Township High School were filled with deep, thought-provoking conversations about teaching and learning with my Math Department colleagues, especially John Benson, Rich Rukin, Richard Kaplan, Peter DeCraene, Jan Flaws, Margie Petrof, Mary Wiltjer, and so many others. John and Rich R. also introduced me to the United States's best local math teacher organization, the Metropolitan Mathematics Club of Chicago. Sue Brown and Virginia Highstone at York High School introduced me to computer programming as a teaching tool in Algebra II and they and other math department colleagues continued the high level conversations about mathematics education that I enjoyed at ETHS.

My development as a middle school math and science, teacher at Lincoln Middle School (LMS) has been because of opportunities that my past and current principals and superintendents have afforded me, particularly the opportunity to co-teach the after school math and science enrichment course, IMSA Fusion, sponsored by the Illinois Mathematics and Science Academy. During this time at LMS, Skip Fennel, a Past President of NCTM, increased my involvement in NCTM a year after my husband died when he appointed me to the editorial panel of the Mathematics Teaching in the Middle School journal. Glenda Lappan, a Past President of NCTM and one of the authors of the Connected Mathematics Project curriculum, Miriam Leiva, founding President of TODOS:Mathematics for All, an affiliate of NCTM, and Linda Rosen, a former Executive Director of NCTM, have all been friends for the past 20-something years and continue to be sources of wisdom and guidance for me.

Reflecting on the many people who I have been blessed to know and work with on my journey as a mathematics educator, I owe scores and scores of math education friends much thanks for their guidance and support, especially to my late husband Paul, and to Dave, Dale, Barbara, Ed, Larry, Diane, Jack, Joel, Glenn, Rose, Gina, Hal, Eric, Doug, Earl, Merri, Wayne, John, Rich, Sue, Virginia, Skip, Glenda, Miriam, and Linda. You are the giants that I have been blessed to stand on the shoulders of. Thank you for all you have done to assist in my growth as a mathematics educator. Happy Thanksgiving!

November Talk Summary

BY NICOLETTE NORRIS

Is teaching mathematics political? The November speaker Rochelle Gutiérrez gave us the answer to this question in her presentation, *Mathematics Teaching, Social Justice and Creative Insubordination*. Rochelle is a professor of Curriculum and Instruction at the University of Illinois, Urbana-Champaign. She started her talk by pointing out the politics involved with education. Teachers may face many political issues while trying to educate students. The press has waged an extreme attack on teachers. Teachers in urban areas are not given the support they are needed so that they can succeed. Oftentimes, success is derailed somehow by politics. An example was given where two schools, Riverside and Union High Schools, were on track to becoming very successful High Schools but their success was derailed by politics. Both schools' goals were to get students to achieve a higher standard of academic success. Math programs like the IMP series were implemented at the schools. The schools seemed like they were on the road to success but politics intervened. Teachers were not properly supported and left after few years of teaching.

Next, Rochelle showed how big for-profit corporations are getting in the politics of education. An example given was Pearson, the testing company. Pearson can now decide who is eligible for teaching by looking at a portfolio submitted by the applicant. Still another example is big corporations are spending money to take over the schools systems and privatize them. Many of these corporations are deciding how students will be taught without regards to equity of the students or their educational outcomes. Rochelle then went on to show the politics involved in being a math teacher. She stated in order to learn mathematics one must accept the language of mathematics and have a leap of faith. Mathematics is seen as the gateway to being qualified as being smart. If someone admits there are a math teacher it usually followed by a groan or the statement "I was never good in math," or "You must be really smart." Learning to think abstractly is the goal and deviation from this goal seems primitive. Math is also context dependent. Often times the problems explored in the math class have students questioning, "Why do we have to do this problem?" She proposed a mirror test to those teachers who do teach mathematics: "Can I look in the mirror and do what I said I was going to do when I first started teaching mathematics".

Rochelle then went into the vision of teaching mathematics now and how it can have impact on equity for the students. The current vision of teaching mathematics is that a teacher must have content knowledge, pedagogical knowledge and knowledge of students. Politics interferes with this vision and creates a problem. Rochelle suggested a new vision for teaching mathematics. In her new vision, teachers still need to have content and pedagogical knowledge, but they need to have an understanding of the politics of teaching mathematics and knowledge of students and their relationship with mathematics. Rochelle suggested we look at the secondary curriculum and ask ourselves why we teach this content. She suggested that other courses, like the history of math, should be considered. The courses taught should help create equity in learning. A factor that is critical in equity of learning is how students identify with mathematics. The question Rochelle asked was "Do I have to give up who I am in order to learn mathematics?" Rochelle raised the question of whether people need math or math needs people. She says that not only do math teachers need to play the game of math politics but they also must change the game. In order to change the game teachers must learn Creative Insubordination. She gave six ways to be creatively insubordinate:

- 1) **Press for Explanation:** If someone states something that may suggest and inequity in education the teacher should press the person to further explain their point.
- 2) **Counter with evidence :** If someone makes a statement that the students are not capable of learning the content, the teacher can counter with examples of student work where it shows the students are achieving.
- 3) **Use the Master's Tools:** For example if someone is using data to prove a statement about how something is not working then the teacher could suggest to look at the data; how is it collected, and what kind of data is being collected.
- 4) **Seek Allies:** Teachers should seek help from colleagues with more experience or knowledge of the building before challenging politics in the building
- 5) **Turn a Rational Issue into a Moral One:** Ask: "Is this what we want to be remembered for?" or shame people into doing the right thing
- 6) **Fly under the radar:** The teacher asks for forgiveness not permission.

These six examples are not all encompassing and are not foolproof. Despite this, Rochelle stated that this should not be an excuse for teachers not to teach. It is important that teachers pick their battles Rochelle again emphasized that teachers need to use the mirror test to ensure that we are teaching with equity.

News Of Note

By JOHN McCONNELL

NCTM Position Papers Reinforce MMC Fall Speakers

Two of this fall's dinner speakers have addressed social and equity issues in mathematics classrooms. Nora Ramirez spoke about Supporting English Language Learners, and Rochelle Gutierrez discussed Social Justice. These are national issues that have been addressed in NCTM Position Statements. Specifically, the following two position papers offer context, recommendations, and references that can be useful to any school addressing language and cultural changes in the school population.

Teaching Mathematics to English Language Learners states, "expanded learning opportunities and instructional accommodations should be available to English Language Learners who need them to develop mathematical understanding and proficiency."

<http://www.nctm.org/Standards-and-Positions/Position-Statements/Teaching-Mathematics-to-English-Language-Learners/>

Access and Equity in Mathematics Education calls for mathematics teachers to ensure that all students "routinely have opportunities to experience high-quality mathematics instruction, learning challenging mathematics content, and receive the support necessary to be successful."

<http://www.nctm.org/Standards-and-Positions/Position-Statements/Access-and-Equity-in-Mathematics-Education/>

NCTM Meetings

NCTM Annual Meeting sites for the Aprils of 2016 through 2019 have been announced. NCTM will hold its 2016 Annual Meeting in San Francisco. In 2020, there will be TWO NCTM national meetings. NCTM will celebrate its 100th birthday with a Centennial Conference in April. The regular Annual Meeting will be held in October.

NCTM Interactive Institute

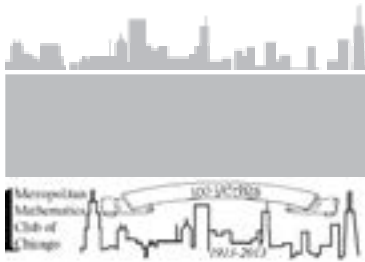
NCTM has individual and group registration open for the professional development Effective Teaching with Principles to Actions: Implementing College and Career Readiness Standards in Dallas, Texas, February 5-6, 2016. This institute is targeted at teachers and administrators Pre-K through High School. As its title suggests, it focuses on implementing standards in the classroom, increasing faculty and administrator knowledge of mathematics content and learning progressions, and ways to plan and implement effective instruction. Goals of the institute include providing teachers with classroom-ready strategies and school leaders with key collaborative team activities for implementing CCSSM standards.

<http://www.nctm.org/ptainst/>

ICTM Annual Meeting

Many MMC members attending the 2015 ICTM Annual Meeting October 23-24 were delighted to find lots of people and many more exhibits than have been at the Annual Conference for the last several years. This was not an accident. ICTM and the Illinois Science Teachers Association (ISTA) shared the Convention Center. Each ran its own series of sessions and workshops, but shared the exhibit hall. ISTA attracted many vendors who wouldn't come to a mathematics meeting, but who had some great stuff and potential activities for mathematics teachers.

The 2016 ICTM Annual Meeting will share space with ISTA again. It will be in Peoria, October 7 and 8.



MMC Scholarship

BY LAURA KAPLAN

There is a new application this year!
See the insert for further details!

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Carrie Fraher, President-Elect
John Diehl, Past President
Lynn Bond, Secretary
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Lynn Bond (2015-2018)
Plainfield Central H.S., Plainfield

Tom Bond (2015-2018)
Plainfield Central H.S., Plainfield

Peter DeCraene (2014-2017)
Evanston Township H.S. Evanston

John Diehl (ex officio 2013-2016)
Hinsdale Central H.S. (retired), Hinsdale

Michelle Eggerding (2013-2016)
Schaumburg H.S., Schaumburg

Carrie Fraher (2015-2018)
Glenbrook South H.S., Glenview

Sheila Hardin (2014-2017)
Oak Park & River Forest H.S., Oak Park

Laura Kaplan (2014-2017)
Chicago Academy for the Arts, Chicago

John McConnell (2014-2017)
Glenbrook South H.S. (retired), Glenview

Matthew Moran (2013-2016)
Whitney M. Young Magnet H.S., Chicago

Nicolette Norris (2013-2016)
Chicago Vocational Academy, Chicago

John O'Malley (2014-2017)
Glenbrook South H.S., Glenview

Nancy Powell (2015-2018)
Illinois Math and Science Academy, Aurora

Patricia Trafton (2015-2018)
Lincoln M.S., Schiller Park

Mary Wiltjer (2013-2016)
Glenbrook South H.S., Glenview

Officials

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Points & Angles Editor	John O'Malley
Publicity and Posters	Paul Christmas
Scholarship Chair	Laura Kaplan
Social Media Chair	Laura Kaplan
Webmaster	Peter DeCraene

The Metropolitan Mathematics Club of Chicago is offering a \$1,500 scholarship for a high school senior who will pursue a career in the teaching of mathematics. In addition, up to two Filliman Scholarships may also be awarded for the same amount (funded by a gift from the Filliman estate). The selected students, their parents and their sponsoring teachers will be invited to the May 13th MMC dinner meeting at which time the scholarship recipients will be honored.

A selection committee of MMC members appointed by the Board will determine the scholarship awards. To be eligible, an applicant must submit the application, have an official transcript sent, and request a letter of recommendation from a member of MMC such that all of the materials are *received* by March 18, 2016. The committee will establish its own guidelines for evaluating applications, and will make a recommendation to the Board as to the awarding of the scholarship. No member of the selection committee may nominate nor recommend a candidate.

The guidelines used for selection shall be:

- A. Demonstration of overall academic scholarship with an inclusion of at least eight semesters of college preparatory mathematics. (A minimum cumulative grade point average of 3.0, where A = 4.0)
- B. A statement of the intention to pursue a career in mathematics teaching.
- C. Indication of participation in extra curricular activities, especially those that may have a positive influence on a teaching career.
- D. Applicants must have a letter of recommendation from a member of the Metropolitan Mathematics Club who is familiar with the applicant's academic performance and his or her potential as a mathematics teacher.
- E. Applicants must submit a short response to different prompts that deal with teaching and mathematics. See the application for more details. ***This is new this year***

** Up to 3 awards are possible based on candidate qualifications. The organization reserves the right to award fewer scholarships if these are not met.

Do you use Twitter?

Use #mmcchicago to tag your tweets and communicate with other MMC members on twitter!



"like" us on Facebook!

<http://www.facebook.com/MMCChicago>



December Meeting Beef Option

MMC has a tradition of always having a beef option for dinner at the December meeting. This still holds true for this year as well! You may select a chicken or vegetarian option instead if you would like. In order to do this, please make a special meal request when you make your reservation for the dinner meeting. Special meals must be pre-ordered ahead of time so do not delay! Remember, you should try and reserve by noon on Monday December 7th.

NAME		PREFERRED CONTACT Check one: <input type="checkbox"/> Home <input type="checkbox"/> Work	
HOME ADDRESS			
CITY	STATE	ZIP	
HOME PHONE	HOME E-MAIL		
EMPLOYER			
WORK ADDRESS			
CITY	STATE	ZIP	
WORK PHONE	WORK E-MAIL		
ELECTRONIC-ONLY MEMBERSHIP Check the box below for electronic-only membership. You will receive an email with a direct link to each issue of <i>Points & Angles</i> when it is posted on the web site, often before paper copies are mailed. You will no longer receive <i>Points & Angles</i> by mail.		MEMBERSHIP TYPE Check one:	
<input type="checkbox"/> Electronic-Only Membership		<input type="checkbox"/> 1 year (\$32) <input type="checkbox"/> student*, 1 yr (\$20) <input type="checkbox"/> 2 years (\$57) <input type="checkbox"/> 1 st yr teacher*, 1 yr (\$20) <input type="checkbox"/> 3 years (\$80) <input type="checkbox"/> retired, 1 yr (\$25)	
FORM USE Check one:		MEMBERSHIP COST \$	
<input type="checkbox"/> New Membership <input type="checkbox"/> Renewal <input type="checkbox"/> Former Member <input type="checkbox"/> Change of Address		DONATIONS	
<small>* The student and 1st-year teacher memberships are only available as electronic-only.</small>		SCHOLARSHIP FUND \$	
		SPEAKER FUND \$	
		TOTAL AMOUNT OF CHECK \$	

Make check payable to **MMC**

MMC Membership and Change of Address Form

Mail completed form and check to:

MMC
 7339 W. Ibsen St.
 Chicago, IL 60631

Upcoming Events

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Fri., Dec 11	Dale Seymour	Thanks For The Memories: What I've Learned From 60+ Years Of Teaching, Writing, & Publishing About Mathematics
Fri., Jan 8	Steve Viktora	Two Chariots Leave Different Cities At The Same Time... A Lively Look At Word Problems Through The Ages
Sat., Feb 6	MMC Conference Of Workshops	Lincoln-Way Central High School
Fri., Mar 11	Francis "Skip" Fennell	Critical Foundations For Establishing Number Sense
Fri., May 13	Zal Usiskin	The Real Big Ten: The Toughest Mathematical Ideas For High School Students To Learn, And How To Approach Them

Send upcoming event items to jomalley@glenbrook225.org no later than the date of the MMC dinner meeting preceding the issue in which the item should appear. All items are subject to editing.

Your membership renewal date appears in the upper right corner of the label.

MAILING LABEL

STAMP

METROPOLITAN MATHEMATICS CLUB OF CHICAGO
c/o MMC
7339 W. Ibsen St.
Chicago, IL 60631

MMC Scholarship

The Metropolitan Mathematics Club of Chicago is offering a \$1,500 scholarship for a high school senior who will pursue a career in the teaching of mathematics. In addition, up to two Filliman Scholarships may be awarded for the same amount (funded by a gift from the Filliman estate). The selected students, their parents and their sponsoring teachers will be invited to the May 13th MMC Dinner meeting at which time the scholarship recipients will be honored.

A selection committee of MMC members appointed by the Board of Directors will determine the scholarship awards. To be eligible, an applicant must be sponsored by a member of the MMC, submit the application, have an official transcript sent, request a letter of recommendation from a mathematics teacher, and respond to the prompts in point E below such that all of the materials are received by March 15, 2016. The committee will evaluate applications, and will make a recommendation to the Board of Directors as to the awarding of the scholarship.

The guidelines used for selection shall be:

- A. Demonstration of overall academic scholarship with an inclusion of at least eight semesters of college preparatory mathematics. (A minimum cumulative grade point average of 3.0, where A = 4.)
- B. A statement of the intention to pursue a career in mathematics teaching.
- C. Indication of participation in extra-curricular activities, especially those that may have a positive influence on a teaching career.
- D. A letter of recommendation from a math teacher who is familiar with the applicant's academic performance and his or her potential as a mathematics teacher.
- E. A short response from the candidate (1-2 paragraphs) to each of the following prompts.
 - a. What qualities do you possess that will help you in a teaching career?
 - b. Describe a teacher who has had an impact on your education.
 - c. Was there a time when you struggled with a concept in a math (or other) class? What did you do?
 - d. What was your favorite math class? Why?
 - e. Describe your favorite math problem. What makes it so great?
 - f. What excites you about mathematics?
 - g. Why do you want to teach mathematics? *This response may be longer than the others if necessary*

In addition to the form on the next page, applicants must also send:

1. A letter of recommendation from a mathematics teacher. *Preferably not sent through the applicant**
2. A current transcript for seven semesters of high school. *
3. Responses to the prompts in point E above.

**Letters of recommendation and transcripts may be sent by separate mail.*

Application for the MMC and Filliman Scholarships

Application Deadline Received: March 15, 2016

Name: _____ Date: _____

Address: _____

Email: _____

School: _____

School Address: _____

Home Phone: _____ School Phone: _____

Sponsoring Teacher (must be a member of MMC): _____

Please complete the following:

Overall Grade Point Average (A=4, B=3, C=2, D=1, F=0): _____

Mathematics Courses and Grade Taken

Mathematics Course Grade Received

Extracurricular Activities (inside or outside of school): _____

I (*print your name*) _____ intend to pursue a career in Mathematics education.

Signed _____

Please send all information by 3/15/16 to:

Laura Kaplan

phone: 312.421.0202

Chicago Academy for the Arts

fax: 312.421.3816

1010 West Chicago Avenue

email: lkaplan@chicagoartsacademy.org

Chicago, IL 60642