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**Volume XI No.3**      **Macomb Mathematics Science Technology Center**      **2009-2010**

## Senior Dinner

Monday, April 26<sup>th</sup> the MMSTC senior class celebrated their accomplishments with parents, family members, teachers and administration at the 2010 senior dinner. Each student was recognized and their plans for the future were shared with all. This year's senior class of 65 students procured over 5 million dollars in scholarship money. Good luck class of 2010, you will always be thought of kindly and missed deeply. Always remember you ARE an essential piece of the puzzle.



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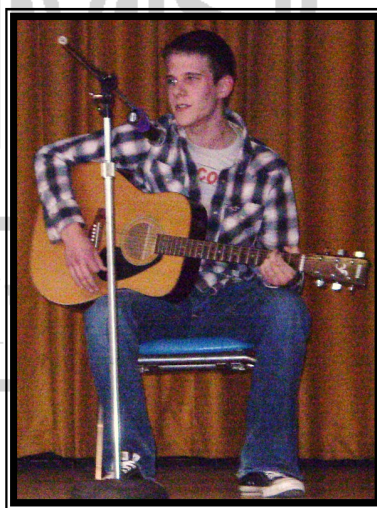
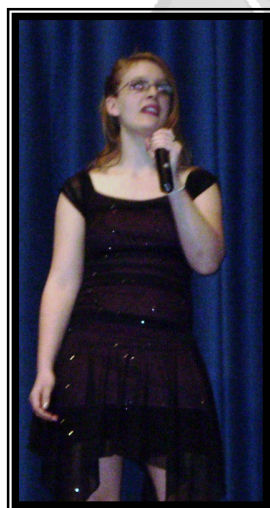
## MMSTC'S GOT TALENT!

Do you think that "Butcher kids" are only good at math, science and technology? Think again! MMSTC students have a wide variety of interests, aptitudes and talents! By popular demand, the first MMSTC Talent Show took place on the evening March 31, 2010, after successful A.M. and P.M. programs were performed earlier that month. Acts ranged from singing and dancing to juggling and fire dancing! Proceeds from the evening performance went to Green Club activities. Three acts were even recruited to perform later for the English Language Learned Program at Pearl Lean Elementary School. Thank you to our performers, MCs, stage crew and teacher organizers **Mr. Supal** and **Mrs. Kincaid Dewey**.



**Brad Barry** (Senior, FHS)  
**Kyle Blankenship** (Junior, LVHS)  
**Mario Cale** (Junior, SHHS)  
**Jackie Close** (Junior, SHHS)  
**Jordan Frontiero** (Senior, LSHS)  
**Jacob Gross** (Junior, FHS)  
**Andrew Hoepner** (Senior, FHS)  
**Chris Kot** (Senior, WMHS)  
**Lyndsey McCarver** (Junior, FHS)  
**Charlotte McCray** (Senior, WMHS)  
**Josie Patalon** (Junior, CHS)  
**Juzzlyn Perry** (Junior, WMHS)

**Jovan Popovich** (Senior, WMHS)  
**Amanda Roach** (Sophomore, CHS)  
**David Rulestead** (Junior, CHS)  
**Mary Salisbury** (Senior, CDHS)  
**Anna Salvaggio** (Senior, WMHS)  
**Luisa Scavo** (Senior, LVHS)  
**Anna Swando** (Senior, LVHS)  
**Nick Thomas** (Freshman, CHS)  
**Joel Tylenda** (Sophomore, SHHS)  
**D. C. Wheaton** (Senior, LVHS)  
**David Yandall** (Senior, SHHS)



**Tammy Hsia** (SHHS, 2010) has been awarded an honorable mention in the Michigan **Society for Medical Research (MISMR) Annual Essay Contest**. Tammy was one of six honorable mentions from over 7,200 entries. Her essay was about animal research and its contributions to finding medical advancements.

### SENIOR ABSTRACTS PUBLISHED

**Michael Daugherty** (LSHS) and **Kevin McCarty** (LSHS) will have their senior research abstract published this year in the NCSSSMST Journal. They did their research on *The Effect of Fertilizer on the Oil Content of Lemna Minor* in **Mr. Estapa's** advanced biology class. The abstract should appear in this spring's volume or you can view it as a PDF file at [www.ncsssmst.org](http://www.ncsssmst.org) online. This is a nice honor for these young men as well as our school. Congratulations gentlemen on a job well done.

## 2010 American Education Week Poster Contest



Warren Consolidated Schools and the Warren Education Association sponsored a poster contest in observance of American Education Week. Students created a poster around the theme Public Schools: A National Treasure. School winners were submitted to the district-wide contest and thirteen finalists were chosen. Finalists received a U.S. Savings Bond from the Warren Education Association. MMSTC students **Rebecca Meerschaert** (Cousino HS, 2012) and **Charlotte McCray** (WMHS, 2010) received the sophomore and senior grade level awards.

## SOPHOMORES ATTEND CAREER EXPLORATION DAY



On March 19, 2010, the MMSTC Sophomore class participated in Lawrence Technological University's Exploration Day. This all day activity allowed students to visit the Lawrence Tech. Campus as well as exploring dynamic career and education options. Students were able to participate in three interactive, hands-on sessions specially designed to expose them to the rich variety of programs that Lawrence Tech. has to offer. Sophomores had many favorite sessions: the digital arts session where students explored the use of graphics, images, and objects, time-based media involving motion graphics, web design, animation, game development, and architectural conceptualization; biomedical engineering, where students were able to experiment with professional testing equipment to see how bio-medically engineered products can contribute to the health and wellbeing of our society; and rapid sketch, where students were introduced to a quick sketching exercise used in a design environment to bring their ideas to life.

**MMSTC** has earned the coveted **Evergreen Status Designation** from the Macomb County Green Schools Program. The Evergreen designation can be achieved by successfully participating in 20 events throughout the year, which can include our recycling program, GREEN Club, Windspire, solar panels, and eco-pond. In total, 71 Macomb County schools earned "Green" status; of those, 23 also achieved "Emerald;" and 15 also achieved "Evergreen" status. This is a tradition we hope to continue in years to come. See page 8 for a picture of students with our Evergreen flag.

# BRIGHTEST & Best

Jeff  
Carothers



Audrey Hutton    Anna Myers    Kaitlyn Bimberg    Caroline Clifford    Nick Catoni

Clark  
Green

WXYZ-TV/Channel 7 paid tribute to over 250 high school seniors from throughout Southeast Michigan at a special picnic in celebration of the "Brightest & Best". Since 1980, the station has honored graduating seniors from public and private schools who have demonstrated excellence in academic, extracurricular and community pursuits. The program has recognized over 7,000 high school seniors in its 31-year history, making it the longest-running program of its kind in the Detroit market.

## MMSTC JUNIORS VISIT MSU/COM MICHIGAN STATE UNIVERSITY COLLEGE OF OSTEOPATHIC MEDICINE

Recently, the MMSTC junior class was invited as guests to tour the new MSU/COM facility at the center campus of Macomb Community College. The students spent the day learning about the field of osteopathic medicine from several doctors, medical students, and administrative staff. After touring the new facility and viewing a virtual anatomy and physiology lab, as well as, interactive classrooms and manipulation labs, the students met with several of the doctors and learned about their specialties. One particular lecture and graphic slide presentation from infectious disease specialist, Dr. Ongen, elicited lots of reactions from the squeamish to the "that's so cool" response!

Students became well versed in the osteopathic philosophy that the focal point of their curriculum is patient care and that the practice of osteopathic medicine is holistic in nature. The principle of integrating biological, clinical, social, and behavioral sciences was evident throughout the day.

The day was a practical and helpful way to explore a career path in the health sciences. Knowing that a medical school of this caliber and reputation lies in own backyard was well worth the trip!



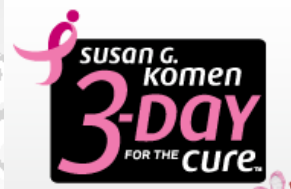
## Mrs. MARIE COPELAND



MMSTC says good-bye and good luck to a “Butcher” legend. **Mrs. Marie Copeland**, an original teacher that created our program has officially retired from the Warren Consolidated School District. Instrumental in designing and structuring MMSTC to what it is today, Mrs. Copeland leaves a true legacy behind. The creator of the original Geometry Algebra and Transformations (GAT) class, as well as AP Calculus, Mrs. Copeland has prepared well over a thousand students to become the leaders in their chosen fields of study. Her teaching style of “never say anything that you can get a student to say,” has pushed our students to become better thinkers, better students, and independent learners. Mrs. Copeland had the knack of using her expertise, professionalism, compassion, and extremely high energy to bring out the best in each and

every student she encountered. Not only has Mrs. Copeland influenced MMSTC but has reshaped the way mathematics is taught throughout Macomb County and the entire state of Michigan.

On a personal level, Mrs. Copeland is a strong believer in giving back to her community. A strong supporter of the 3-Day Breast Cancer Awareness annual event, her church, and the entire Warren Consolidated community, she encourages her students to do so as well. She is an excellent role model of what it means to be a true citizen of your community. We wish her well in her retirement and can feel confident in saying that she will always be a part of the MMSTC family.



## Alumni Update

**Christopher Klerx** (Class of 2009): The Philosophy Department at Michigan State University selected Christopher as one of two outstanding students to receive the Benjamin Miller and Bruce Miller Award 2010 which is presented yearly to the most promising sophomore students in philosophy. Awardees have “demonstrated that they are impressive, disciplined and enthusiastic philosophers”. Congratulations Chris!



**Amelia Zessin** (Class of 2007): The American Chemical Society Cleveland Section awarded one of four undergraduate awards to Amelia after her presentation at their Meeting-in-Miniature on March 17, 2010. Amelia spoke about the research she conducted at John Carroll in the summer of 2009. She has also been offered a summer internship working in the Molecular Genetics Department at the Cleveland Clinic for 10 weeks this summer.

## MMSTC GREEN Club Going Strong

The MMSTC GREEN Club (Global Research of Energy and Environmental Needs) has completed several significant projects this past school year. The 250-watt solar panel project has been completed. During the day, the panels store energy from the sun in a set of DC batteries. In the evening, the stored energy is used to power ground lighting that illuminates the Windspire. Show right are **Matt Adams** (SHHS, 2010) and **Tomasz Guzek** (SHHS, 2010) installing wiring for the ground lighting circuit.



Another green activity involved the construction of a solar car designed in Solid Works, and fabricated from aluminum channel salvaged from a demolished sunroom. The project was headed up by seniors **Dan Chan** (Cousino, 2010), **Matt Hoffman**, and **Jovan Popovich** (WMHS, 2010). The vehicle has 180 watts of power in full sun and travels at 10 mph. The on board storage batteries provide two hours of operation in no sun conditions. Shown left are frame designer, **Matt Hoffman**, and IDS teacher **Mrs. Gerling**.



Other projects handled by members of the Green club were the clean up of the pond area with the installation of the MMSTC rock logo and several new bird houses. Also, a worm composting bin has been established, and the hydroponics equipment is growing corn and other vegetables in the green house. To see

actual video footage of many of these projects go to [www.cityofwarren.org](http://www.cityofwarren.org) and look at the videos titled the week of June 7<sup>th</sup>, or June 14<sup>th</sup>, or June 21<sup>st</sup> (search toward the ends of the video clips). The videos are also aired on TV Warren, for Warren residents.

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## MMSTC at CEDAR POINTE

Tuesday May 18, the Juniors and Seniors of MMSTC attended the annual fieldtrip to Cedar Point Amusement Park in Sandusky, Ohio. The students learned the importance of raincoats and dry socks as the skies were cloudy and wet all day. Fortunately, the crowds were small and lines were short on this rainy day.

While at the park, Physics students were required to collect data, make observations and calculations. They calculated the acceleration of the Millennium Forces first drop, the amount of G-Forces on Top Thrill Dragster, power of the Power Tower and the length of the Rip Cord. What was not calculated was the increase in rest mass due to calorie intake via Funnel Cakes and Dippin' Dots! The projects, which were counted as a Physics test, were turned in around 2:00 p.m. so the students had the rest of the day to enjoy the park and keep warm.



## FRESHMEN ZOO VISIT

In keeping with tradition, the freshmen class closed out the school year with an exciting trip to the Detroit Zoo. Students and parents were exposed to a variety of new exhibits at the renovated Detroit Zoo. **Mr. Acre, Mrs. Gerling, and Mr. Estapa** had a unique experience with a rhinoceros in the 4-D movie theatre.

**Danny Shing** (Cousino HS) found the trip to most exciting when socializing with all the new friends he made while donning a zebra mask. Mr. Shing also expressed that the less than perfect weather was not a factor that could have spoiled his experience. The cool temperatures and lack of sun made it ideal for the animals to be out and about during our visit so viewing was at a premium.

**Kayla Mough** (Fraser HS) found that she enjoyed meeting new people and making new friends. In



fact, there was one person who seemed to follow her wherever she went. This left quite the impression with Ms. Mough, as she listed the experience as her most memorable while at MMSTC.

**Drew Martin** (SHHS) enjoyed growling at the bears and being carried around by his fellow group members. Everyone enjoyed finding all of the answers to Mr. Estapa's questionnaire. 😊

Overall, despite the rain and cool temperatures the freshmen -- and their

parents -- had a fun, informative visit.

## CHEMISTRY + POOL = FUN FOR SOPHOMORES!



The sophomore class took a break from the cold and snow and spent the day at the Warren Community center Pool this winter. Students found out that science and math are everywhere! Students calculated their kinetic energy as they slid down the water slide. They calculated the pH of the pool, and conducted thermo-

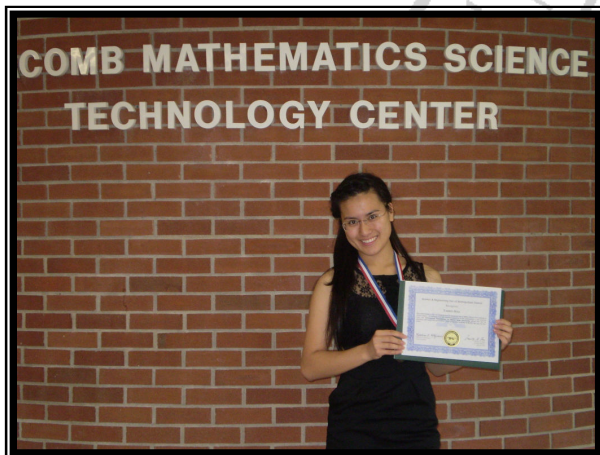
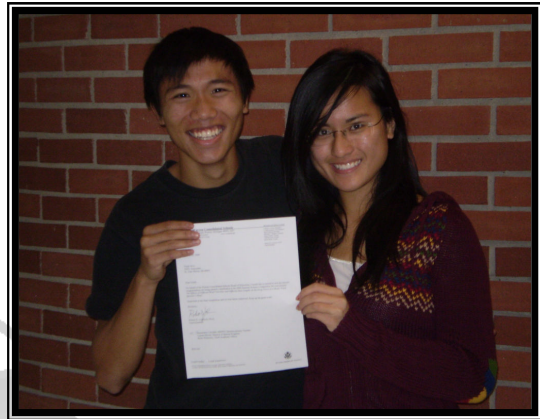


chemistry experiments while enjoying a soak in the hot tub. Just another opportunity for MMSTC students to learn through application!



## SENIOR RESEARCH PROJECT REPRESENTED AT INTERNATIONAL SCIENCE FAIR

In May, **Tammy Hsia** (SHHS, 2010) and **Frank Woo** (LVHS, 2011), the Grand Champions of the Detroit Science and Engineering Fair held this past March at Cobo Hall, set out for San Jose, California with **Mr. McMillan** for the ISEF for a week. They reconstructed their science board in San Jose and presented their research findings in another grueling round of judging. They met over 1500 other high school science fair finalists from all around the world -- 42 countries in all -- and of course students from many other states in the U.S. At the first night's pin exchange, attendees traded pins representing Michigan for ones that embodied the cultures from places like India, China, and Brazil.



Many students were awarded monetary grants, internships, scholarships, and trips to enter their research into other countries' science fairs. Best of Category winners were each given an all expense paid trip to visit with CERN scientists in Geneva, Switzerland. Our **Tammy Hsia** received the **Borman Award**, which is an all expense paid trip to Israel to **conduct research at the Weizmann Institute** of Science for a month in July. What a fabulous opportunity! This is the second year in row that a MMSTC student has received this honor. Last year Lyndsey Reich also received the Borman Award and said it was an experience she would remember forever.

## OFFICIAL MICHIGAN GREEN SCHOOL



Afternoon students with Evergreen Flag



**Mrs. CAROLE GERLING**

“Your happiness means nothing to me.” is Mrs. Gerling’s infamous quote, but nothing could be further from the truth. After 19 years with MMSTC and more than 30 years in education, our much beloved 9<sup>th</sup> and 12<sup>th</sup> grade IDS teacher is retiring. Current and former students hold her in high regard, with many alum visiting, emailing and even inviting her to major life events like weddings. Having worked with all grade levels of IDS students in her tenure at MMSTC since the original graduating class, Mrs. Gerling has been this program’s biggest cheerleader and embodies the heart of the MMSTC spirit.



When asked why students love her so much, Mrs. Gerling responded, “I have no idea. I yell at them. I tell them I expect them to be better than everyone else and I tell them how successful they are going to be – they just don’t know it yet.” Mrs. Gerling takes time to celebrate student successes, whether posting articles from the newspaper on the hallway bulletin board or posting accomplishments on our TV message board. Her collection of college pennants on her classroom wall inspires students to follow in the footsteps of their predecessors and reach for the stars. The best part of her career at MMSTC has been “the pride in what students become and that I have been part of it.” When there are lab reports to write, research papers to compile and presentations to prepare, “WWGD?” (What would Gerling do?) will continue to be asked by staff and students alike. We wish Mrs. Gerling the best in her post-education life, and we will always consider her part of our MMSTC family.

**A Senior Biology Rite of Passage:  
Feline Familiaris Dissection**

During the final three weeks of Advanced Senior Biology the students embarked on the final phase of their Biology education at the Macomb Mathematics Science Technology Center. As Advance Placement exams drew to a close, the seniors began the long awaited task of dissecting the Feline familiaris (for those of you that are unaware that would be the common house cat). The students were required to conduct a dissection of their specimens with a focus on the detail provided by the students in the explanation and documentation of body systems. As a final project progressed, the students pulled from their IDS skill-set to photograph, prepare a Power Point slide show, and present their projects. Students spent many hours removing and studying much of the cat’s tissue to expose the veins and arteries of the circulatory system or painstakingly removed muscle tissue to reveal the inner working of the lower digestive tract. Many of the students will use the skills and information that they collect at MMSTC in similar anatomy laboratory sessions next year at the university level.

# STORY TIME! REACHING OUT TO HELP OTHERS



On April 24, 2010, thirty MMSTC Seniors had a wonderful experience with the kindergartners at Wayne Elementary in Detroit. **Rebecca Pittman** (SHHS) organized a used-book drive. Four boxes of books were donated to Wayne Elementary's library, and each of the 70 kindergarten students was able to choose two books and take them home. The seniors read the chosen books to their new friends, and then worked with them on various literacy activities such as "D is for Dinosaur." It was a wonderful experience for everybody. The seniors had a great time

interacting with the eager little ones, and the little kindergartners continue to ask **Ms. Malone** when she is bringing all of her kids back for another visit! Thanks to everyone who participated!



**PERFECT SCORE: TRIGSTAR SCHOOL WINNER!**

Sophomores spent much time preparing for this year's TRIGSTAR contest, given May 17<sup>th</sup>, 2010. **Mr. Craig Amey**, our sponsor from Michigan Society of Professional Surveyors, once again proctored the contest after a previous visit to introduce students to the surveying profession and to this yearly contest. This year sophomore **Ryan Bisson** (Fraser HS) was the MMSTC winner with a **perfect** score of 100 points in 51:04 minutes. Second and third place are **Kristi Gallis** (Cousino) and **Trent McDowell** (Cousino). **Brittany Morrell** (CLHS) was the only student besides Ryan to get the real-life application problem completely correct! Kudos to the sophomores for their efforts!



**SENIOR DINNER PHOTOGRAPHS**



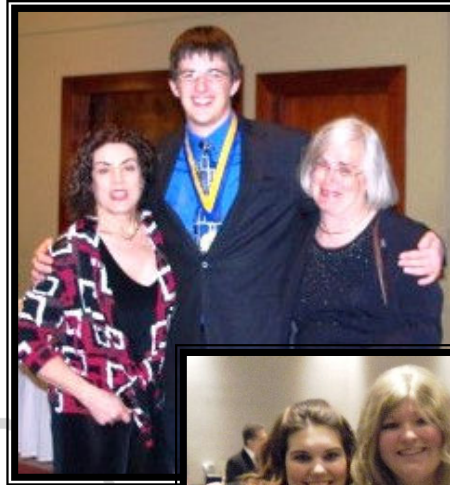
After the dinner & program, seniors pose for small group pictures. See all the big smiles?



**MORE SENIOR DINNER PICTURES**



The surprise of the evening: David's new haircut!



Director Lauran Hoven and Counselor Elissa Brown present MMSTC medals.



**WARREN CONSOLIDATED SCHOOLS**

Dr. Robert D. Livernois, Ph.D.  
 Brian Walmsley, Chief Academic Officer  
 ▲  
 Macomb Math Science Tech Center  
 Lauran Hoven, Director of Special Programs  
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**MMSTC MISSION STATEMENT**

The mission of the Macomb Mathematics Science Technology Center, in partnership with families and community, is to create the best innovative environment, which fosters excellence and vision in teaching, learning, and discovering the relationships of mathematics, science, technology, and society.

In compliance with Title VI of the Civil Rights Act of 1964, Title IX of the Education Amendments of 1972, Section 504 of the Rehabilitation Act of 1973, the Age Discrimination Act of 1975, the Americans with Disability Act of 1990, and the Elliott-Larsen Civil Rights Act of 1977, it is the policy of the Warren Consolidated Schools that no person shall, on the basis of race, color, religion, national origin or ancestry, gender, age, disability, age, height, weight, or marital status be excluded from participation in, be denied the benefits of, or be subjected to, discrimination during any program, activity, service or in employment. Inquiries should be addressed to the Chief Human Resource Officer, 31300 Anita, Warren, Michigan 48093, (586) 825-2400, ext 63110.

**Student Achievement**

*A focus on measurable student achievement in our Professional Learning Communities.*

**Clear Expectations**

*Clear expectations for every stakeholder, including students, staff and parents.*

**Strong Relationships**

*Strong relationships among all stakeholders, including: teacher/student, parent/teacher, principal/teacher, and superintendent/board member.*