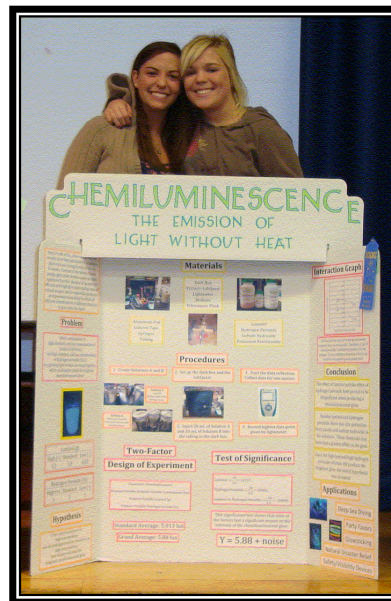
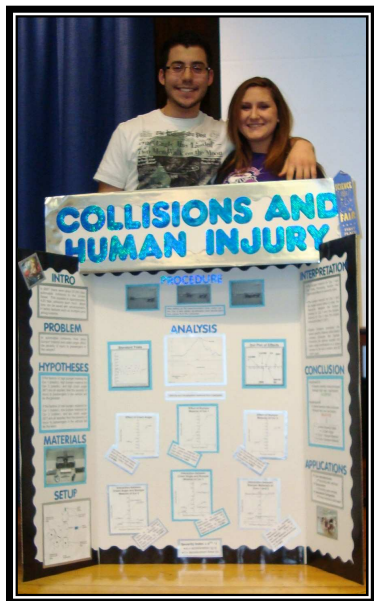




Δ Center Line Δ Clintondale Δ Fraser
 Δ Creuse Δ Cousino Δ Warren Woods
 Δ Fitzhugh Δ Line Shore Δ Lakeview
 Δ South Lake Δ Lake Creuse North Δ
 Sterling Heights Δ Warren Mott

The CENTER PAGE

Senior Science Fair



On Wednesday, January 21, 2009, senior research projects came to an end with the annual MMSTC Science Symposium. The seniors presented their research and answered questions for industry professionals, engineers and university professors. A winner was chosen in each subject area and an overall winner was chosen from the subject winners. The symposium represented the culmination of four years learning and hard work for the students. Although this event closes a chapter in the senior MMSTC experience it is our hope that these amazing students will be able to look back on this time in their academic career and utilize these skills through out their lives. We would like thank all of our symposium judges for taking time to enrich our program with their knowledge and experience as well as to celebrate the efforts of our outstanding senior class. **WINNERS:**Physics: **Anthony Farah & Rebecca Piazza** COLLISIONS AND HUMAN INJURY Biology: **Lyndsey Reich & Tamim Shaker** (Grand Champion) THE EFFECT OF UREA AND TREE OIL IN E. COLI Chemistry: **Lindsay Lorida & Lauren Waggoner** CHEMILUMINESENCE: The emission of Light without Heat.

<i>IN THE CENTER PAGE...</i>			
Freshmen Homecoming	2	Math Competition Finalists	6
Junior Visit to U of M	3	Solid Works: Paper Airplanes	6
Summer Spotlight	3	Welcome to MMSTC Family	6
Mole Day Activities	4	Counselor's Corner	7
Student Poetry	4	Annual Halloween Party	7
Robotics	5	Student Bio-Poem	7
Student Bio-Poem	5	Capture the Flag	8

FRESHMEN HOMECOMING

On Friday, October 3, the Class of 2012 hosted the Ninth Annual Freshman Homecoming. Weeks of planning and preparation went into this year's gala event. The crowds were exceptionally large because of the unusually good weather



The dearly beloved sophomore class of 10A was invited to partake in the yearly festivities, and then soundly defeated the freshmen "Power Rangers" in the annual touch football game. Tenth grader **Catherine Rayos**, not only threw five touchdown passes in the victory, she caught three of them. The MVP chosen by the winning team was **Alex Kluz**. The Freshmen marching band consisted of **David Conklin, Pamela Conley, Seth Fleming, Andea Harthorn, Brittany Morrell** and **Adna Salimovic**. High stepping Drum Major **Stathis Pauls** was assisted by Junior Drum Major **Scott Pino**.

The afternoon homecoming parade was a true crowd pleaser, and attendance at the game was standing room only, setting a new record of three. The 9B "Smrte Pantz" lost a close game to the 9C "Smokin' Aces." A last second touchdown pass from **MacKenzie Krolczyk** to **Mike Freckelton** put the Aces ahead at the end. Lightning speed was showcased by **Cat Buchanan** as she defended against the outstanding running back **Jessica Behnke**. The precision marching of **Michael Buckenmeyer, Amber Cicalo, Gabby Dorchak, Lydia Feld, Ash Gerebics, Michelle Kane, and Amber Watripont** showed off their obvious hours of practice.

A special thank you goes to **Scott Freckelton** and **Nawal Spicer** for all the time and effort into providing printed tee shirts for the students.





Junior Class Visits University of Michigan

On Friday, November 7th the entire junior class boarded the bus for a trip to Ann Arbor to visit the University of Michigan. The morning started off with an educational and entertaining lecture by Professor Tarle of the physics department. His lecture on energy would not be complete without the proverbial loud booms, bangs, and crashes. Our students participated in a discussion about energy that included topics such as the energy of the sun, the potential of a Snickers Bar and cool electrical demonstrations. After a quick but informative tour of central campus the students were led to the new undergraduate science building. There we were met by about 20 MMSTC alumni who had lunch with us and answered lots of questions about the transition from MMSTC to the university level. A panel of students whose majors included engineering, secondary education, psychology, biochemistry, and mathematics offered tips and suggestions about what to expect when you enter college. Last but not least we were led to a dormitory and a living learning community. Our students learned about the various learning communities such as the Women in Science and Engineering (WISE) program, Health Scholars Science Program (HSSP) and the Undergraduate Research Opportunities Program (UROP). The only negative comment heard throughout the day was the students wished they had more time! All in all, the trip was a great success and a great way to spend a day away from MMSTC.



Summer Spotlight



Seniors **Kyle Greger** and **Christopher Klerkx** both had opportunities this past summer to put theory into practice. Kyle attended the People to People Ambassador Leadership Program. Kyle spent 21 days traveling around learning about the rich European cultural heritage. Kyle's experiences included visits to Switzerland, Germany, Belgium, Netherlands, France and Great Britain. While in Germany, Kyle stayed with a German family and was immersed into their everyday life style, including attending school for one of the days. On previous trips to Europe Kyle devoted most of his stay learning about the roles European leaders have played in the shaping of the continent.

Christopher Klerkx spent this past summer participating in the Oakland University Summer Mathematics Institute, a program offering free mathematics courses to gifted pre-college students. He earned a total of six college credits taking Combinatorics: Enumeration and Geometric Structures. The institute culminated with a banquet at which Christopher delivered a short presentation of his independent study titled "A Bijection from Binary Trees to Planted Planar Trees." Way to go MMSTC Seniors.

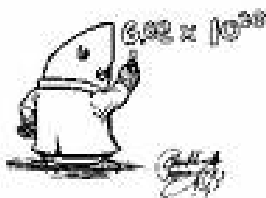
Sophomore Mole Day Activities



There's always time for ice cream!



Class of 2011 works on Mole Day lab!



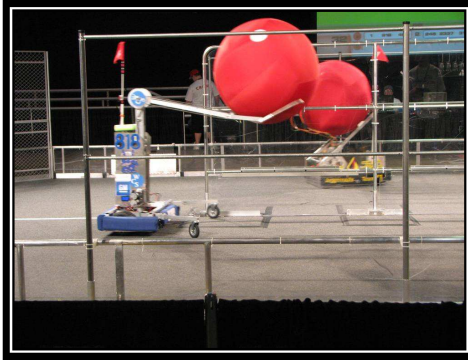
Kyle Hildebrant shows off his monster mole sundaes!

On October 23rd the sophomore class celebrated National Mole day. A mole, or 6.02×10^{23} , is chemistry's equivalent to a dozen. Except, one mole is much bigger than a dozen! Students celebrated mole day in their Chemistry, Functional Statistics and Trigonometry (FST), and Interdisciplinary Studies (IDS) classes through several cross curricula projects. Leading up to mole day students learned about proportions in math by taking a real life object and creating a mathematical relationship between one mole of that object and a distance, weight, or volume. For example **Lyndsay McCarver** and **Jessica Chapman** calculated that one mole of puffy Cheetos weighs as much as one billion Great Walls of China! **David Rulestead** and **Kevin Yu** found that one mole of rice weighs as much as 27 moons of Saturn! Students then utilized their IDS skills to create a multimedia PowerPoint presentation that illustrated this concept. In chemistry, students celebrated Mole Day by adorning National Mole Day temporary tattoos and making yummy mole sundaes. Students also conducted an experiment that proved the mathematical theory behind the mole and its role in how the periodic table is organized. Math is the language of chemistry after all!

Student Poetry

Students in Mrs. Kincaid Dewey's math classes researched the life of a mathematician they chose. The information gathered was then turned into a bio-poem, a biographical poem with a specific format. Look for selected work throughout the newsletter.





Robotics at MMSTC

The WCS-GM robotics team has started preparing for another year of robot game challenges. Students and parents met at Butcher Community Center October 20th to find out what the team is all about. The turnout was great and currently we have 35 students from within the district on the team.

Pre season meetings involve organizing sub teams, fundraising, ordering team ware, fun engineering challenges and don't forget of course, eating pizza. Saturday, January 3rd, the team met at Novi High School where we watched a broadcast from NASA that showed us the object of the game, the general rules and how to score points. We also got our kit of parts at this kick-off and then the real fun begins: we start designing, building and programming our own robot.

We will work out of CPC; this is a new location for us this year and the advantage of it is that the whole team will be working in one location. Engineers from GM and other facilities, along with teachers from the district and parent volunteers will meet students at CPC everyday from 3pm until 6pm for six weeks to work together to get the job done.

A new event competition structure for regional competitions is being piloted in Michigan. It provides more regional competitions being offered so that more teams in Michigan will be able to attend. It also lowered the cost, so that schools can attend three regional competitions for almost the same price as one competition cost previously.

We are all looking forward to this season with great enthusiasm and energy. The work is hard but the pay off is rich. Students have this great opportunity to learn and enjoy technology that will be a big part of their life.

LEWIS

Creator of a Wonderland of Mathematics

Who was a teacher, mathematician and logician

Lover of photography, wordplay and logic

Who believed in "as many as six impossible things before breakfast;"

Believed in Anglo Saxon teachings; believed in the beauty of youth

Who wanted to share his love of mathematics with children; wanted children to remain such forever; wanted to create his own words

Who used the pen name Lewis Carroll rather than his real name, Charles Dodgson; used mathematics and logic in his writing of Alice in Wonderland;

Who gave inspiration to songwriters including The Beatles song "I am the Walrus"; gave up mathematic lecturing to devote his time to writing; gave the game "Scrabble" to the world.

Who said, "If you don't know where you are going, any road will get you there."

CARROLL

Ashley Nebel, Senior

MMSTC STUDENTS QUALIFY AS FINALISTS IN THE MICHIGAN MATHEMATICS PRIZE COMPETITION

MMSTC students, **Matt Affeldt, Michael Audette, Chris Klerkx, Kevin Liening, Steven Mazur, Bach Nguyen, and Derek St. Louis** all qualified in the Fifty-Second Annual Michigan Mathematics Prize Competition. They are among the top 1,000 students from among 8,000 students in Part I of the Michigan Mathematics Prize Competition. Part I was a multiple-choice exam with forty problems given at 190 high schools throughout Michigan on October 8, 2008.

The finalists competed in Part II on December 3. The exam consisted of five challenging problems which the students had to provide written explanations for their claims and mathematical proofs of their results. The students with the top 100 scores on the two parts will be invited to an Awards Day program next March at Saginaw Valley State University. **Kevin Liening** was informed that he is part of that group! The top 50 will be presented with scholarships ranging from the bronze awards of \$250 to \$2600 for the first place gold medalist.

Aeronautics – Solid Works Style!

Students in the 11th grade IDS class used Solid Works, a computer aided design package, to engineer model airplanes. The goal of the project was to research, replicate and design a model airplane to fly the farthest with a single hand toss. The airplane components, which included a fuselage, wing, rudder and elevator, were cut out in Styrofoam with a special machine called the Versa Laser. The airplanes were assembled and carefully balanced to maximize lift and flight distance. Students completed a report on the history of their airplane along with an analysis on how well it flew. Some of the interesting designs included the F-18 Super Hornet, the P-51 Mustang, and the Stearman Biplane. The record tosses of over 100 feet were by **Peter Jaworski** with a Russian MiG-15 and **Eric Heath** with a US F-16 Fighter Falcon. Shown below are **Wendy Lenhardt** (left), and **Chelsea Thomas** (right) discussing a recent flight.



Welcome New Member Of the MMSTC Family!

A warm welcome goes out to Maxwell Scott Hilliard who was born on Friday, November 28, 2008. Proud parents Scott and Jamie Hilliard (MMSTC Chemistry teacher) thank the students and their families for their generosity and support.



THE COUNSELOR'S CORNER

COLLEGE VISITS

Once again the senior class had an opportunity to meet with college admission counselors from various universities across the country. Of course, University of Michigan and Michigan State University had the most attendees. This year we also had representatives from the University of Rochester, Bowling Green State University, and Rose-Hulman to name a few. During the visit the students have an opportunity to learn more about the university, specific programs, scholarship and financial aid resources, and ask lots of questions about the admission process and procedures. This is a great way for the students to narrow down the choices of universities they will be applying to and explore the many different majors that are available for study. The admission counselors are extremely impressed with the caliber of our student body. Between the honor and AP classes and extensive research background the students receive, our MMSTC students are highly sought after and desirable applicants for the universities' freshman class.

MMSTC Halloween Party - Over but Not Forgotten!

Once again, this year's event was a blast with music, Guitar Hero, crazy games and, of course, the costume contest. Special thanks to lead seniors **Dona Chan** and **Ashley Nebel** and the organizing committee!



Benjamin

Mathematician, Astronomer

Who was curious, inventive, studious and bold.

Lover of astronomy, literature and history.

Who believed that everyone deserves an education, that knowledge is important and that African Americans have equal rights.

Who wanted to prove that he was an equal, to spread knowledge to help his community, to learn more.

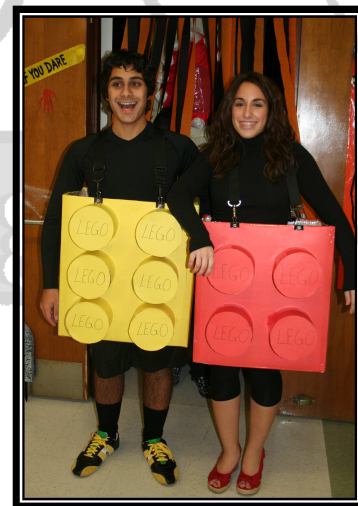
Who used a level, a telescope and books.

Who gave time, inspiration and predictions.

Who said, "The color of the skin is in no way connected with strength of mind or intellectual powers."

Banneker

Emma Chandler, sophomore



This year's costume winners – **George Basil** and **Ashley Cicalo**!

Warren Consolidated Schools

Dr. Robert D. Livernois, Ph.D.
Brian Walmsley, Chief Academic Officer
Karen Hill, Ex. Dir. Elementary Education
Todd Biederwolf, Ex. Dir. for Secondary Education

Macomb Math Science Tech Center
Lauran Hoven

Director of Special Programs
MMSTC Newsletter Committee: MMSTC staff
Printing and Mailing: Secretarial Staff

Board of Education 2007-2008

Loretta A. Crow, President
Sherry Brasza, Vice-President
Brain White, Secretary
I. Susan Kattula, Treasurer
Diane Holden, Trustee
Clifford Terry, Trustee
Brendan Paul Wagner, Trustee

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.

Warren Consolidated Schools is committed to the concept of equal employment opportunity as a necessary element in its personnel program. It is the policy of the district to prohibit discrimination on the basis of race, color, sex, age, religion, national origin, height, weight, marital status, handicap, or other characteristic in concordance with the law. Compliance inquiries should be addressed to the Assistant Superintendent for Human Resources, 31300 Anita, Warren, MI 48093. (586) 825-2480

Macomb Mathematics Science Technology Center

27500 Cosgrove
Warren, Michigan 48092
586-698-4394
www.wcskids.net/mmstc/

Non Profit Org
U.S. Postage
PAID

Warren, MI
48093
Permit #87

Annual Senior Capture the Flag Showdown

On a beautiful fall day, the Seniors had fun playing Capture the Flag. The purpose was to make the former AM and PM students merge into one big, happy Class of 2009. The Red Hot Tamales took on the green team. **Justin Cetnar**, an expert in Capture the Flag, was injured from a paintball incident, so he explained the rules and announced periodic "Jail Breaks." We're not sure if the flag was captured by either team, but everyone had a great time, building class spirit. (Of course, no MMSTC activity is complete without some yummy treats!)

