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TECH TIMES

STMHS Newsletter Fall 2009



Magnet School Recruitment

Science and Technology Magnet High School is in full recruitment swing for the 2010/2011 school year. Each year Mr. Allen presents STMHS to eighth grade students from thirteen towns. The recruitment team then goes back to each district for an evening venue that presents to the parents of possible students. During the months of November and December STMHS opens its doors for several guided tours and a weekend open house.

Applications will be accepted until January 8, 2010, and the lottery will be drawn on January 13, 2010. For an application, please visit us on line at www.nlstmhs.org.

Recruitment Dates:

Wednesday, December 2, 2009: 6:00 PM

**Saturday, December 5 and Sunday,
December 6, 2009: 1:00 – 3:00 PM**



**Early Release Days – 1:00 PM Dismissal
December 1 and 15, 2009**

**December 24, 2009 – January 1, 2010 - Holiday Recess for New London
Public Schools – School will resume on Monday, January 4, 2010**

January 18, 2010 - Martin Luther King Day – No School

**Early Release Days – 1:00 PM Dismissal
January 12 and 26, 2010**

January 22, 2010 - Teacher Meetings – No School

School Cancelations

Weather is always unpredictable in southeastern Connecticut and your child's safety is a priority to STMHS. In case of school cancelation or early release due to inclement weather the school will send home a phone message via the Parent Link notification system. Parent Link is a communication tool to assist the district in communicating up-to-the-minute announcements and notifications.



School
Reminders

Faculty Focus

Robert Lefebvre received his BS in Mechanical Engineering from Brown University and enjoyed a 27 year career in engineering. He has been involved in jet engine development at Pratt and Whitney, training sailors to operate nuclear power plants at General Electric and support of nuclear power plant construction and operations at Northeast Utilities.

When his children, Matthew and Bethany, were in middle and high school Bob worked with students designing and building sets for school musicals. This positive experience convinced Bob that he wanted to eventually teach at the secondary level. Matt is now a high school band director at Westborough High School in Massachusetts and Beth is studying fashion design at Massachusetts College of Art and Design. Bob lives in South Kingstown, RI, with Louise, his wife of 37 years, who is a retired elementary school music teacher.

In August of 2000 Bob left engineering to teach Technology Education at Windsor Locks High School. He has completed his teacher certification program and masters degrees in Educational Leadership and Technology Education at Central Connecticut State University. He comes to STMHS to teach classes in Civil Engineering and Architecture, Digital Electronics and Principles of Engineering.

A message from Mr. Lefebvre:

"This opportunity to become part of the faculty at STMHS will allow me to involve students in hands on, multidiscipline problems like those that engineers deal with daily. The project based engineering program that students participate in at STMHS makes math and science come alive. I'm proud to be able to help prepare the future problem solvers and innovators that our society needs."

lefebvrer@newlondon.org



Guidance Corner

Hi! My name is Michelle Mercado and I am the guidance counselor for the Science and Technology Magnet High School. This is my first year as a school counselor and I look forward to working with each and every student to make their high school career as successful as it can possibly be.

I am currently working on college recommendations for a number of seniors and helping them fill out college applications and scholarships. I am also encouraging students to complete personal education plans, so that we have a better understanding of what each student would like to get out of his or her high school years at the Science and Technology Magnet High School. My goal is to meet with each STMHS student individually before the end of the school year.

My office is located in the main office of STMHS, right behind Jeanne Mercado's desk. Please feel free to come by and see me at anytime; my door is always open!!

Thank you.

Michelle
mercadom@newlondon.org

"Failure is not an option. Success is an attitude!"

A Glimpse Inside the Biomedical Program at STMHS!

Principles of Biomedical Science

Students have been engaged by reading about a woman who is found dead in the entry to her house. In order to determine how she died the students were introduced to seven major human body systems: cardiovascular, digestive, endocrine, immune, nervous, respiratory, and urinary. Students have explored the meaning of the term system and investigated the interrelatedness of human body systems.

Human Body Systems

Students investigated the body systems and functions that all humans have in common while looking at differences in tissues, such as bone and muscle, and in molecules, such as DNA, to pinpoint unique identity. Students played the role of forensic anthropologists as they unlocked the clues of identity found in bone and used restriction analysis and gel electrophoresis to analyze differences in DNA.

Medical Interventions

Students have been introduced to a fictitious patient who is presenting symptoms of an unknown infectious disease which students eventually identified as bacterial meningitis. The patient is left with hearing impairment. Through this case, students have explored the diagnostic process used to identify an unknown infection, the use of antibiotics as a treatment, how bacteria develop antibiotic resistance, how hearing impairment is assessed and treated, and how vaccinations are developed and used to prevent infection.

Janet Farquhar, Project Lead the Way Biomedical Teacher, attended the National Project Lead the Way symposium in Austin, TX, and STMHS will be a Certified Biomedical Program by the end of this school year. Great job Janet!



HBS students Emily Meija and Darien Thomas look on while Jaonna Ramseur takes her turn loading DNA into a gel for electrophoresis.



MI students Chassa Ladson and Andie Maillet are performing an ELISA test to determine the presence or absence of a specific antibody in several patient samples.

Senior Projects

The senior project is a culminating activity for our magnet school seniors. It involves our seniors selecting a topic they are passionate about and creating a professionally developed report and presentation, based on the research and actual first hand experience they have acquired with their mentor in their chosen subject.

Students are expected to spend a minimum of twenty hours with their professional mentors at their place of work. They then combine the knowledge gained through both their research and the real world experience to create a professional portfolio and presentation that is reviewed by a panel comprised of professionals from a variety of occupational fields in the community. A rubric is used to assess both the portfolio and the presentation. If they receive a passing grade they are then eligible for a magnet school diploma.

Special Education Department

The special education department at STMHS consists of Mr. Friedberg and Ms. Winans. Ms. Winans is currently running two resource rooms and Mr. Friedberg has a resource room and team teaches in science and math classes. One new piece of technology the special education department is using is the Kurzweil text to speech reader. When a student scans any page of text, or a test he/she might be taking, this device highlights a line at a time and reads it in a natural sounding voice. If a student does not understand a word, the word can be selected and the built-in dictionary will read the word by syllable and read a definition for the word. This is a very good device for struggling readers!

Environmental Science Program

The environmental science program has been awarded a \$10,000.00 grant from the Dominion foundation to develop an outdoor classroom/arboretum on a piece of land adjacent to the STMHS. This land is currently not being utilized. This is a STEM project for the magnet school. The environmental science classes and the engineering classes will be key players in the development of this piece of land.

The greenhouse has been cleaned and students are interested in starting a garden club. Mrs. Swiatek is more of a water person so she will be looking for Mrs. Natoli to help her start up the greenhouse. Mrs. Natoli is an organic farmer. The STMHS is also looking into alternative energy for the school.

Mr. Allen is working with the architects evaluating the options for wind, solar and geothermal energy for the school. The environmental science classes will also be involved with this project as it develops.

Coral Lab-The coral lab has been redesigned and Mrs. Swiatek is looking for students to come after school to help with the maintenance of the coral tanks. Mitchell College will be offering a Tropical Ecology course after school in the spring of 2010. Magnet school students interested in this class should see Dr. Brennan.

Course Selection- Please advise your son or daughter that there are two options for college credit in Environmental Science. One is by taking an AP Environmental Science class where your student can receive college credit by taking the AP Exam in the spring; the other option is through the College Career Pathway Program through Three Rivers Community College.



We, at the New London Science & Technology Magnet School, take pride in offering our students state of the art skills in the areas of Science, Technology, Engineering and Mathematics, while ensuring that they have exceptional foundations in reading and writing.

To this end our faculty utilizes our Literacy Model, which consists of having our students:

Demonstrate the ability to comprehend and follow directions by:

1. Consistently restating questions as part of their answers.
2. Answering questions correctly, drawing on their knowledge of the subject matter.

Providing evidence that supports their conclusions and a list of their sources.