Mount Laurel's Science,Technology, Engineering and Math (STEM) Program began in September of 2010. Former Superintendent Dr. Antoinette Rath set the goal for that year after studying startling statewide data on the low numbers of young women entering the workforce in Science and Math professions. With state aid to schools dwindling, she sought and received a $15,000 grant from Lockheed Martin to begin the program.

We started in our fifth, seventh and eighth-grades. By November of that first year, Lockheed granted an additional $5,000. In January of 2012, we received our first grant of $15,000 from The Sallie Mae Fund, a total we have continued to receive. That allowed us to create the sixth-grade Robotics component, and the middle school STEAM Program, which incorporates the Arts into Science, Technology, Engineering and Math.

In 2013, we maximized learning by replacing a study hall period in all Harrington Middle School students' schedules with a full-year elective course of study.

The 2014-2015 school year marks the introduction of Computer Coding to our middle-school curriculum. When students learn to code, there is no limit to what they can create in the virtual world. It allows them to move from consumer to innovator in the field of technology.

Additionally, through the generous support of the Mount Laurel Public Education Fund, Inc. and our seven Parent-Teacher Organizations, a number of after-school clubs support our commitment to STEM Education.

Our future goals involve retooling our labs and providing one-on-one technology to broaden collaboration with students across the world via Skype.

George J. Rafferty
Superintendent

Robert F. Wachter
*Assistant Superintendent
for Business*

Dr. Sharon Vitella
Assistant Superintendent

Dr. Diane Willard
Director, Child Study Team

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*Inspiring Potential.
Enriching Futures.*

Mount Laurel Schools

STEM Education

Hartford School

Inventions - Grade 5
Answers the question "Why Invent?" Uses critical thinking and problem-solving skills. Students use design process to define a problem and propose a solution. They work in teams to create the solution.

Robotics - Grade 6
Students explore the design process via multimedia presentation with interactive group activities. They then relate the design process to Robotics utilizing the Lego Mindstorm robotics sets. Their goal is to build a robot and program it to accomplish a given task.

Harrington Middle School
Grade 7 Cycle Courses

STEM
Underwater exploration is the focus of this course. Students study the types of engineers and the reasons for underwater exploration. In teams, they build fully-functional ROVs in the classroom. Our SeaPerch project includes both electrical engineering and mechanical engineering. Students learn to wire and solder circuit boards, and wire motors to the vehicles. ROV's are tested in the pool and programmed to perform specific objectives.

Financial Literacy
Students learn the different types of financial products/services offered by different financial institutions, as well as debt/credit management strategies. They research beneficial debt leverage strategies and the purpose of a credit score/record.

Grade 8 Cycle Courses
STEAM
The element of the Arts is added to this STEM course. Students identify and research an environmental problem and create a documentary video that proposes solutions. They share their videos with students in other local/global communities in order to collaborate on an effective solution. Emphasis is on the use of digital tools and media-rich resources to solve local and global problems.

Computer Coding
Students engage in online lessons, develop code and complete activities using HTML/CCS and Python programming languages. They design a product that solves a problem or presents information electronically using the appropriate technology tools.

Harrington Middle School Electives

Challenge-Based Learning
Students select the topic! Anything from global warming to local relief efforts. They work with partners or independently to research the topics and seek solutions, reach out to experts in the field, gather information from a variety of sources, and share findings using a variety of presentation mediums.

Inventive & Creative Thinking
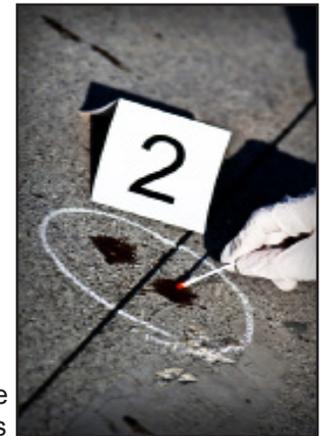Stimulates interest in math, science, and engineering and connects the process of invention to everyday life and a broad range of careers and social issues. The invention challenges emphasize teamwork, creative problem solving, and how invention improves people's lives.

I-Publish
Students create original work published in various ways including newspapers, magazines, online, and books. They create original articles and stories and learn how to make contact with magazine and newspaper editors and publishing companies to interview and ask questions about the publication process.

Crime Scene Investigation
In this course, students reconstruct the scene of a fictitious crime and draw conclusions from evidence to help solve the case. They gather and analyze data, and learn how forensic science has impacted the outcome of criminal justice. Curriculum includes the trends, vocabulary, techniques and steps involved in careers involving both forensic science and criminal justice.

Show Me the Money!
Teaches students how to compare costs in a real-life, daily experience sort of way and prepares them for everyday experiences from maintaining a car to becoming an entrepreneur. They learn to compare costs, set-up a bank account and set reasonable estimates for expenses.

Extra-Curricular Activities Based on STEM
Harrington After-School Clubs

Math Matters Club
Underwater Robotics - Levels I and II
Eco-Wild Club
Annual Math League Competition