WORKSHOPS   1:00 - 2:00

Solar Shingles: Not ON Your Roof -- They ARE Your Roof!

Michael Murphy, Murphy Brother Contracting   **LOCATION: S 108**

Learn how DOW Powerhouse Solar Shingles differ from solar panels. All of the tax advantages & solar power benefits while providing the same protection as roofing materials.

Manufacturing at Home: CNC Metal Routers & Arduinos

John Saunders, NYC CNC   **LOCATION: S 109**

A local resident, John runs a high scale machine shop and publishes YouTube videos on home-based manufacturing. Don't miss this chance to meet him live, see his equipment, be amazed by his projects and learn how math & science drives it all.

Painless Programming: Coding Without a Computer!

Henry Smith, Chatsworth Elementary School   **LOCATION: N 110**

No computers. No cords. No electricity. But you will learn a "robot vocabulary" that, when correctly used, accomplishes tasks. When things go wrong, you'll need to "debug." All the logic of programming with none of the fear.

Scratch: Drag & Drop Coding Workshop for Kids and Adults

James Cunningham, Mamaroneck Avenue School   **LOCATION: Library Computer Lab 1**

In this family workshop, parents and children will learn the basics of Scratch software, a drag and drop coding language. Scratch is free online software so you can keep working back at home. This one-hour MIXED AGED class is easy enough for elementary kids and challenging enough for high schoolers.

Society of Hispanic Professional Engineers

Presenters and details to be determined   **LOCATION: Library Computer Lab 2**

Discover Google Glass, Session 1

Christophe Toudic, P\S\L Group   **LOCATION: Library Presentation Room**

Come discover why everyone is talking about Google Glass and learn how this new technology is integrating your favorite apps and functionality into this hands-free device that is our future.

Firefighting Is STEM in Action: Pressure, Hydraulics, & Flow

SESSION 1   **LOCATION: Rear Driveway (Rain Location: W 204)**

Mamaroneck Town Fire Department

Chief Joe Russo, Deputy Chief Noah Goldberg, Deputy Chief Paul Tortorella, Capt. Tom Broderick

Each session will cover the STEM calculations and gear behind fire fighting. Includes physics of rope rescue, how air bags lift heavy objects, fireground hydraulics that determine the quantity and pressure of the water needed to put a fire out and fire hose design from nozzle reaction to flow.

WORKSHOPS   2:00 - 3:00

Building Your Online Brand - A Workshop for Teens

Dora Maria Abreu, Credit Suisse, AVP, Client Infrastructure Services, IT   **LOCATION: S 108**

Facebook, Instagram, Twitter - all of these social media platforms create a digital "YOU." What is your online brand? Learn to read what other people see in your digital footprints. Intentional or unintentional - you have a social brand. It's time to own it.

Making, Tinkering and Inventing Across Disciplines

Maureen Reilly, 4th grade Teacher & STEAM Integrator, The Blue School   **LOCATION: S 109**
Lauren Monaco, Studio Teacher, The Blue School

Discover the world of Automata - a.k.a kinetic art or mechanical toys. Make & take your own Automata creations while learning about how The Blue School is integrating tinkering into classroom learning.

Guessing Game: A Crash Course in Developing Apps

Jason Alexis, Monroe College   **LOCATION: N 110**

Create a fun mobile app with a background, labels, text fields and buttons. Code a simple guessing game and install app on to your device (Android/iOS/Windows). Yes. All that in one hour!

Scratch: Drag & Drop Coding Workshop for Kids and Adults

James Cunningham, Mamaroneck Avenue School   **LOCATION: Library Computer Lab 1**

In this family workshop, parents and children will learn the basics of Scratch software, a drag and drop coding language. Scratch is free online software so you can keep working back at home. This one-hour MIXED AGED class is easy enough for elementary kids and challenging enough for high schoolers.

Firefighting Is STEM in Action: Pressure, Hydraulics, & Flow

SESSION 2   **LOCATION: Rear Driveway (Rain Location: W 204)**
Mamaroneck Town Fire Department

Chief Joe Russo, Deputy Chief Noah Goldberg, Deputy Chief Paul Tortorella, Capt. Tom Broderick

Each session will cover the STEM calculations and gear behind fire fighting. Includes physics of rope rescue, how air bags lift heavy objects, fireground hydraulics that determine the quantity and pressure of the water needed to put a fire out and fire hose design from nozzle reaction to flow.

WORKSHOPS   3:00 - 4:00

Helmet Safety: Using World Class Materials Science to Protect Olympic Athletes

Dr. Nikhil Gupta, NYU Polytechnic School of Engineering   **LOCATION: S 108**

Using custom-built compression machines, electron microscopes and high speed photography, Dr. Gupta and his team studied how materials respond to impact. See samples and consider their applications for different sports and the military.

Painless Programming - Coding Without a Computer!

Henry Smith, Chatsworth Elementary School   **LOCATION: N 110**

No computers. No cords. No electricity. But you will learn a "robot vocabulary" that, when correctly used, accomplishes tasks. When things go wrong, you'll need to "debug." All the logic of programming with none of the fear.

Scratch in Spanish: Taller de codificación de Arrastrar y pegar para niños y adultos

Educators from hTINK   **LOCATION: Library Computer Lab 2**

En este taller familiar, los padres y los niños aprenderán los aspectos básicos del software "Scratch", un lenguaje de codificación de arrastrar y pegar. Scratch es software en línea gratis de modo que pueden seguir trabajando en el hogar. Esta clase de una hora para personas de varias edades es suficientemente fácil para niños de la primaria y suficientemente desafiante para estudiantes de la secundaria.

Firefighting Is STEM in Action: Pressure, Hydraulics, & Flow

SESSION 3   **LOCATION: Rear Driveway (Rain Location: W 204)**

Mamaroneck Town Fire Department

Chief Joe Russo, Deputy Chief Noah Goldberg, Deputy Chief Paul Tortorella, Capt. Tom Broderick

Each session will cover the STEM calculations and gear behind fire fighting. Includes physics of rope rescue, how air bags lift heavy objects, fireground hydraulics that determine the quantity and pressure of the water needed to put a fire out and fire hose design from nozzle reaction to flow.

WORKSHOPS   4:00 - 5:00

Mind/Body Connection: Exam Anxiety for Teens (for students 8th to 12th grade and their parents)

Dr. Juna Bobby, Founder of Mind Body Space   **LOCATION: S 108**

Local parent and NYU trained doctor, Juna will reveal the science of calm. Learn how thoughts, emotions and stress affect health at the cellular and genomic level. Practice relaxation responses in this introduction to mind-body medicine.

MHS's Future Business Leaders of America (FBLA) Team Demo

Jigar Jidav & Maria Sicilliano & FBLA students, Mamaroneck High School   **LOCATION: S 109**

MHS's FBLA students explain the club and the FBLA competition structure. Having just returned from the State competition where they took top prizes, team members will present pieces of their award winning presentations that combine STEM skills such as game and app development. FBLA hones team-based business knowledge and skills development. Learn about their work. Join the team. Consider being a professional mentor.

Magic with a Tech Twist? Just add an Arduino!

Mario the Magician   **LOCATION: N 110**

Come for the top-notch magic. Stay for the Q & A where Mario reveals his Arduino interface that blends creativity with technology. Featured at the World Maker Faire & focus of the film *Building Magic*, don't miss this Rye Neck High School alum!

Visual Basic Programming

Edison Castillo, Monroe College   **LOCATION: Library Computer Lab 1**

Learn the basic concepts of programming, and create your own browser application using VB.net in Visual Studio 2013 IDE. Explore many possibilities of software development with the .NET Framework.

Scratch in Spanish: Taller de codificación de Arrastrar y pegar para niños y adultos

Educators from hTINK   **LOCATION: Library Computer Lab 2**

En este taller familiar, los padres y los niños aprenderán los aspectos básicos del software "Scratch", un lenguaje de codificación de arrastrar y pegar. Scratch es software en línea gratis de modo que pueden seguir trabajando en el hogar. Esta clase de una hora para personas de varias edades es suficientemente fácil para niños de la primaria y suficientemente desafiante para estudiantes de la secundaria.

App Development for Google Glass

Christophe Toudic, P\S\L Group   **LOCATION: Library Presentation Room**

Do you aspire to design your own app? You won't want to miss this opportunity to get an inside look at how apps are developed for Google Glass!

Firefighting is STEM in Action: Pressure, Hydraulics, & Flow

SESSION 4   **LOCATION: Rear Driveway (Rain Location: W 204)**

Mamaroneck Town Fire Department

Chief Joe Russo, Deputy Chief Noah Goldberg, Deputy Chief Paul Tortorella, Capt. Tom Broderick

Each session will cover the STEM calculations and gear behind fire fighting. Includes physics of rope rescue, how air bags lift heavy objects, fireground hydraulics that determine the quantity and pressure of the water needed to put a fire out and fire hose design from nozzle reaction to flow.