



Celebrating  
100 years



**April 2, 2016**  
**9:00 AM – 1:00 PM**

**Foote School**  
**50 Loomis Place**  
**New Haven, CT 06511**

<b>8:30 am</b>	<b>Registration</b>
<b>9:00 – 9:30</b>	<b>Welcome</b>
<b>9:45 – 10:45</b>	<b>Session I Activities</b>
<b>10:45 – 11:00</b>	<b>Break</b>
<b>11:00 – 12:00</b>	<b>Session II Activities</b>
<b>12:15– 1:00</b>	<b>Share, Wrap-up, and Raffle</b>

Parent Sessions 9:45 AM – 10:45 & 11:00 AM – 12:00 PM

### **When Kids Engage in ‘Making,’ Are They Learning Anything?**

*Annie Murphy Paul, Educational writer and researcher*

There’s no doubt that students find ‘making’ to be a creative and engaging activity. But as they tinker, design, and invent, are they actually learning anything? Making is too young a phenomenon to have generated a broad research base to answer this question. But there are two lines of research within psychology and cognitive science that can inform how we understand making and help us ensure that making leads to learning.

Double Sessions 9:45 AM – 12:00

### **Makey Makey Scratch Interactive ‘Zines**

*Josh Burker, Imagination Heavy Industries*

Using collage, copper tape circuitry, MaKey MaKey, and Scratch, design small four-page 'zines with an additional layer of storytelling provided by sounds, animation, or visual effects, to name just a few ideas. (*Suitable for intermediate coders.*)

### **Build a Computer With Kano!**

*Nate Krauss, Student & Kim Birge-Liberman, Educator, Foote School*

Ever build a computer? Now you can. Using Kano's simple to use computer kit, learn the basics of what’s in a computer and how it is built. You will also see a working PC built by a middle school student at Foote School. (*Suitable for all ages; no prior coding experience is needed.*)

## Double Sessions 9:45 AM – 12:00

### **Programming With Arduino**

*Tracy Rudzitis, STEAM Lab Facilitator, The Computer School*

Learn how to program using the Arduino and S4A (a block based programming language based on Scratch). Build a simple circuit using a breadboard. From there, create circuits that use a variety of sensors (input devices) and a variety of output devices (LED's, servos, motors). We will use tiny components and wires, so very young hands and fingers might have difficulty with this workshop. If you are able to download S4A (<http://s4a.cat/>) and install it on your laptop prior to the workshop it will save some time. *(Suitable for all ages; best if you have a basic understanding of the Scratch block-based programming environment.)*

### **Robotics: The Next Generation with LEGO EV3**

*Julianne Ross-Kleinmann, Educator, Foote School*

Comfortable working with LEGO WeDo? Want to try the next level of LEGO robotics? Build, program, and download robotics missions/challenges and get your robot moving without being connected to a computer. *(Suitable for all ages; best if you have a basic understanding of LEGO WeDo.)*

## Session I Activities 9:45 AM – 10:45

### **Introduction to Scratch**

*Jim Adams, Educator, Foote School*

New to Scratch? Never really made a Scratch game before? This session is for you! Cover the basics of Scratch (what is it, how it works, etc.) and make a few games. This session moves at a slow and steady pace, so it is perfect for Scratch beginners. *(Suitable for all ages; no prior coding experience is needed.)*

### **The Art of Math**

*Andrea Sorrells, Educator, Choate Rosemary Hall*

*Heather Zetterberg, Educator, Foote School*

Explore connections between *math* and *art* through hands-on investigations. Create pieces that illustrate a variety of mathematical principles. *(Suitable for all ages.)*

### **Get Acquainted With Turtle Art**

*Michael Tempel, Logo Foundation*

TurtleArt is a microworld for exploring art through turtle geometry. As in earlier versions of the Logo programming language the main actor is a turtle that can draw. But Turtle Art also provides rich control of colors, shades, and pen widths. TurtleArt is a visual programming environment in which programs are created by snapping together blocks on the screen, like in Scratch. The vocabulary of TurtleArt is small so fluency can be reached quickly. "Learn TurtleArt" and start "learning with TurtleArt". Before Scratch Day go to <http://turtleart.org>. Click "email us" to request a copy of the software, which you should download and install on your laptop. *(Suitable for all ages; no prior coding experience is needed.)*

## Session I Activities 9:45 AM – 10:45

### **Scratch “100 Years” Remix Challenge**

*Leo Scheinberg, Student, Foote School*

In celebration of Foote School’s Centennial year, we ask everyone to participate in our Scratch 100 remix Challenge. Learn how to remix a Scratch project and help us reach our 100-remix goal! (*Suitable for all ages; no prior coding experience is needed.*)

### **Leonardo DaVinci’s Robot Drum**

*Kiran Sabooh, Educator, Eli Whitney Museum*

Construct a music machine. Hear the logic of Leonardo's mind at work as he invents the first modern robot, an automatic drummer whose rhythms can be reprogrammed flexibly and whose tempos adjust automatically. Invent your own cadences! (*Suitable for all ages; no prior experience is needed.*)

### **I Do, You Do, With LEGO® WeDo! Part I**

*Drew Sweet, Educator, Jake Nadzam, Student, Foote School*

Work in teams to build and program with the LEGO WeDo robotics construction set. (*Suitable for all ages; no prior coding experience is needed.*)

## Session II Activities 11:00 AM – 12:00 PM

### **Introduction to Scratch**

*Jim Adams, Educator, Foote School*

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### **I Do, You Do, With LEGO® WeDo! Part II**

*Drew Sweet, Educator, Jake Nadzam, Student, Foote School*

Experience a hands-on STEM (science, technology, engineering, and mathematics) lesson that uses the LEGO WeDo robotics construction set and Scratch. Working with a small group, redesign and program a basic robot using Scratch. *(Suitable for all ages; no prior coding experience is needed.)*