SCRATCH DAY

November 15, 2015
9:00 AM – 1:00 PM

Ramaz Upper School
60 East 78th Street
New York City

9:00 AM – 9:30 AM	**Registration**
9:30 AM – 9:45 AM	**Opening Ceremony**
9:45 AM – Noon	**Workshops**
12:15 PM – 1:00 PM	**Closing Ceremony: Project Sharing and Raffle**

Workshop Descriptions

There are one-hour workshops and double sessions, which are two hours, fifteen minutes.

Double Sessions – 9:45 AM – Noon

Cardboard Jam Band with MakeyMakey and Scratch
Karen Blumberg, The School at Columbia

Makey Makey is an invention kit that allows you to use every-day objects and materials, such as aluminum foil, play dough and bananas, to interact with your Scratch projects. Let's construct cardboard shapes, add conductive elements, connect them to MakeyMakey, and program different instruments, sounds, and notes using Scratch to play music and form a band!

Suitable for people of all ages; no prior Scratch experience is needed

Make!Sense - Plug and Play with Sensors
Stephen Lewis, Architectronics

Make!Sense offers a great way to invent physical interfaces for Scratch programs, and also to use sensors with Scratch in science experiments in order to test the speed of your toy car, or the soil moisture of your plants. Learn to make cool inventions out of simple materials using really interesting and fun sensors. Then control your games in unusual ways: Make the Scratch cat jump in time to your heart beat. Create a steering wheel for a race car game. Make your character dance by waving your hands. And much more…

Suitable for people of all ages; no prior Scratch experience is needed

Use Scratch for Arduino to Create Weird Musical Instruments
Steve Farnsworth, The Dwight School

Use Scratch to program the Arduino microcontroller to create your own uniquely weird musical instrument that can be controlled by using different kinds of sensors. Explore the world of building circuits with electronic components, wires, the Arduino and a breadboard.

Best for older Scratchers, age 12 and up; no prior Scratch experience is needed.

Before Scratch Day please go to http://s4a.cat/ to download and install Scratch for Arduino on your laptop.

Making Games in Scratch
Steve Krouse, The Coding Space
Eli Kariv, The Coding Space
Nicole Kelner, The Coding Space

Do you like to play video games? If you do, then you'll love making them! With no prior coding experience necessary, this introductory course will teach you the basics of how to think like a programmer through making a game you can play with your friends.

Suitable for people of all ages; no prior Scratch experience is needed

How to Form an Off-Line Code Community
Ursula Wolz, RiverSound Solutions, Grinnell College

In years past I have had informal conversations about how to provide resources and experience for kids of all ages to extend their programming expertise beyond the minimal Scratch curriculum available in most schools. There is growing evidence that face-to-face conversations are essential to learning. We bring a wealth of experience in bridging the technology divide and nurturing collaborative settings, as well as extensive coding expertise.

Suitable for older Scratchers; parents, teachers, and teens; no prior Scratch experience is needed

One-hour Sessions – 9:45 AM – 10:45 AM

Making a Maze Game with Scratch
Seth Guttenplan, The Community School

Learn some of the basic features of block programming using Scratch by creating your own maze game. You will set up basic game play using the arrow keys before tinkering with different backgrounds to create new levels.

Suitable for people of all ages; no prior Scratch experience is needed

(The workshop "Using Makey Makey to Build a Controller for Scratch Games" in the next time slot is a follow-up to this one so you might want to register for that as well.)

Making a Multi-Player Game in Scratch
Tracy Rudzitis, The Computer School
Zachary Nelson, The Computer School
Evan Flom, The Computer School
Jonathan Chan, The Computer School
Hudson Lester, The Computer School
Thomas Nightingale, The Computer School
Rudy Popper, The Computer School
Spencer Shulman, The Computer School
Aashan Potdar, The Computer School

Learn how to use cloud data and create a multiplayer game in Scratch. Develop your scratch graphic designs and maximize your coding ability using simple Scratch techniques.

Suitable for people of all ages who have some familiarity with Scratch

Make it from Scratch Jr. - Welcome to Coding!
Jennifer Lau, Greenwich Public Schools
Julianne Ross-Kleinmann, The Foote School

This workshop offers an introduction to coding using Scratch Jr. Learn how to create your own interactive stories and games. Create a story about your pet! Make a race between a Bear and a dog! Explore a spooky nighttime forest. Or anything else you can imagine. We will start with some easy instruction and templates and you will be off and running quickly.

Best for younger Scratchers ages 5 to 7, their parents, and teachers; no prior experience is needed.

Before Scratch Day please download and install Scratch Jr for iPad from the Apple Store or for and Android tablet from Google Play

<u>One-hour Sessions – 11:00 AM – Noon</u>

Using Makey Makey to Build a Controller for Scratch Games
Seth Guttenplan, The Community School

Learn how the Makey Makey kit can be used to create a basic game controller with cardboard and conductive materials such as aluminum, Play-Doh and model magic. You will use the device along with Scratch to control your projects such as the Maze game created in the first hour workshop "Making a Maze Game with Scratch"

Suitable for people of all ages; no prior Scratch experience is needed

(The workshop " Making a Maze Game with Scratch" in the previous time slot is a lead-up to this one so you might want to register for that as well.)

Programming Interactive Games in Scratch Jr.
Alana Zussman, The Dwight School

This hands-on workshop will introduce young programmers to key elements of game design in Scratch Jr. Participants will explore visual block coding and learn to creatively communicate a story through multi layered levels.

Suitable for younger Scratchers ages 5 to 7, their parents and teachers; no prior experience is needed.

Before Scratch Day please download and install Scratch Jr for iPad from the Apple Store or for and Android tablet from Google Play

Introduction to Turtle Art
Sean Justice, Teachers College, Columbia University

Turtle Art is a computational painting application that uses visual blocks, like Scratch. This workshop introduces Turtle Art through a playful exploration of color and shape. With Turtle Art, drawing and painting become visual experiments with geometry and pattern at the intersection of art and computer programming.

Suitable for people of all ages; no prior experience is needed

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.