LOGO FOUNDATION

TEACHERS COLLEGE COLUMBIA UNIVERSITY

Teachers College, Columbia University
Broadway at 120th Street
New York City
December 14, 2019

9:00 AM – 9:30 AM	Sign In
9:30 AM – 9:45 AM	Opening Session - Greetings - Important Information for Scratch Day Attendees
10:00 AM – 11:00 AM	First Session Workshops
11:10 AM – 12:10 PM	Second Session Workshops
12:20 PM – 1:00 PM	Closing Session - Slide Show - Images of Scratch Day - Conversation with Ben Wheeler, live from the MIT Media Lab: *Tiny Tech: making small experiments with Scratch* - Raffle

Scratch Day is a Bring Your Own Device (BYOD) event. Devices may include a Mac, PC, or Chromebook laptop, an iPad, or Android tablet. But not all of these devices will work for some workshops. Check the BYOD section of each workshop description to find out what you will need for that session.

You will be able to register for two workshops during the morning. The registration form lists which workshops are available in each session. Most of them will be offered in both time slots.

Minors under the age of 18 must be accompanied throughout the day by a parent, teacher, or other adult chaperone. Scratch Day is not a drop-off event. Adults learn, explore, and create alongside their children.

Workshops

Intro to Scratch
Khairah Klein and Lucy Malmud, The Spence School
Are you new to Scratch? Do you know some basics but you're interested in learning more about all those blocks? In this workshop, taught by kids just like you, you will learn the basics of Scratch. You'll learn how to create characters and backgrounds you design and build amazing games with them. You will learn coding methods that can be applied to fun projects and learn how to create exciting games. You will walk out of the workshop with a game or animation created all by yourself!
Audience: People 8 years old and up; no prior experience is needed.
BYOD: PC, Mac, Chromebook, iPad, or Android tablet.

Introduction to Scratch Jr
Anderson Harp, Rizzy Areago, Jack Hobbeheydar, Max Schulmeyer, Ali Hamdard, Seth Lieberman, Griffin Glaymon, The Browning School
Coding is the new literacy! With ScratchJr, you can begin expressing your imagination in new ways by programming interactive stories and games. In this workshop led by Browning students, we will start off with a step-by-step activity giving you a quick way to learn what to do with an idea in ScratchJr. Next, the students will share out their personal favorites such as how to use the paint editor and which program blocks can make your characters sing, dance, and play on-screen. Then we'll break into small groups where you will build your own digital story or game that you will leave with and be able to continue to build and play with after our time together.
Audience: children ages 5 to 7 and their grownups; no prior experience needed
BYOD: iPad or Android tablet with Scratch Jr downloaded and installed.
Before Scratch Day: Go to the Apple App Store or Google Play prior to Scratch Day to download and install Scratch Jr.

Get Funky with Funkey, Scratch, and Cardboard musical instruments
Karen Blumberg, The Brearley School
The Funkey board is a microcontroller – just like MakeyMakey – that allows you to use every-day objects and materials such as aluminum foil, playdough, and bananas to interact with your Scratch projects. We'll construct cardboard shapes, add conductive elements, connect them to a Funkey board, and program different instruments, sounds, and notes using Scratch to play music and form a band!
Audience: People of all ages; no prior Scratch experience is needed.
BYOD: PC, Mac, or Chromebook. If you are bringing a Mac, click here for important information.

Let's Get Animated!
Yulia Ovchinnikova, Open Hub Project
Have you ever wanted to animate your name, a friend's name, or even create your own animated Google Doodle? In this beginner's session, participants will work with Scratch to make a word come to life using code, programming, and design. Discover where your imaginations can take you.
Audience: Scratchers 8 years old and up; no prior experience is needed.
BYOD: PC, Mac, Chromebook, iPad, or Android tablet

Beyond the Keyboard - Control Your Scratch 3.0 Game with Body Movements!
Tracy Rudzitis, The Marymount School of New York
Using Scratch and the micro:bit we will design and construct custom game controllers that involve more than just hands and fingers. Can you imagine playing a game with just your feet? With a team of players? Where you use your entire body movement to play the game on the screen? Bring your imagination and your enthusiasm for game playing and we will use cardboard, foil, wires, and craft materials to build large-scale game controllers to play Scratch games. You can take a look at the slide presentation for this workshop at http://bit.ly/Scratch2018-microbit
Audience: people of all ages; some familiarity with Scratch is needed
BYOD: PC with Windows 10+, Mac with macOS 10.13+, Bluetooth 4.0
Before Scratch Day: Please download Scratch Link from https://scratch.mit.edu/microbit and install it on your laptop before you attend the workshop.

Magic Wands with Branches, Scratch, micro:bit
Judith Seidel and students, Friends Seminary
Wave your wand and "magically" hear your music, watch your animation or hear your story. In this workshop you will adorn a branch to make it into a magic wand. You'll put together an accompanying wristband for the micro:bit chip. Then using the micro:bit extension for Scratch, all this enchanting interactivity will come to life!
Audience: Scratchers 6 to 10 years old who have some familiarity with Scratch
BYOD: Mac with OSX 10.13 or higher or PC with Windows 10, Bluetooth 4.0.
Before Scratch Day: Please download Scratch Link from https://scratch.mit.edu/microbit and install it on your laptop before you attend the workshop.

Coding and Game Design for Beginners
Noah Diamond, Kyle Fakhoury, RoboFun
This class will introduce you to game design, gaming, and Scratch as a path to bringing your gaming ideas to life. You will learn how to design characters and backgrounds and how to code for movement, gaining and losing points, and winning and losing the game. There will be plenty of room for creativity and imagination as everyone designs their games or customizes them after their completion.
Audience: People ages 6 to 9, no prior Scratch experience needed
BYOD: PC, Mac, Chromebook, iPad, or Android tablet

Live Coding DJ Slime Party
Karioki Crosby, Columbia University
The Funkey is a microcontroller that allows you to trigger events such as sound.
In this workshop you will make a turntable out of slime and a Funkey board and program it in Scratch to play music customized from the Scratch sound library. You will learn to loop, sample, iterate and alter the pitch of sounds in this live coding party. The future of DJing is live coding!
Audience: Scratchers 8 years old and up
BYOD: PC, Mac, Chromebook. If you are bringing a Mac, click here for important information.

Scratch That… A New Literacy!
Caroleann Del Juidice, Brad Ashley, Bronxville Union Free School District
Computer Science is a part of our everyday life! Join us on an exciting quest to create an art program that connects to the book *Ish* by Peter R. Reynolds. Together we will explore and brainstorm programs that will connect art and literacy using Scratch. In this workshop, you will learn and tinker with concepts such as events, loops, and other programming ideas. Our workshop will have you thinking critically, problem-solving, and collaborating to create an exciting program.
Audience: People 9 years old and up, no prior Scratch experience needed
BYOD: Mac, Windows PC, Chromebook, iPad, or Android tablet

Unleash your Creativity: Make Interactive Art with Scratch
Zhou Yuan and Qiyao Fan, Teachers College, Columbia University
Do you want to use Scratch to create interactive artwork? In this workshop, we will guide you through the key concept of screen coordinates in Scratch, which will be the first step to creating an interactive piece of art. Then you can explore colors, shapes, sounds, animations, and computer-human interactions that are meaningful and fun to you. You will walk away with an interactive art piece which you will be excited to share and play with your friends.
Audience: Scratchers 10 years old and up, no prior experience in art nor Scratch is needed.
BYOD: Mac, PC, Chromebook, iPad, or Android tablet

Create a Musical Instrument Using Circuit Playground Express
Steve Farnsworth, Avenues
Using Circuit Playground Express, you will create your own musical instrument and play it. You will be able to take advantage of the many onboard sensors, speaker, and color changing LEDs to design a musical instrument of the future.
Audience: Scratchers 8 years old and up; no prior experience is needed.
BYOD: PC, Mac, or Chromebook. If you are bringing a Mac, click here for important information.

Sample, Scratch, Sequence!
Josh Burker, The School at Columbia
In this workshop you will use the power of Scratch to create your own "sequencer," a device that captures sounds and plays them back in an order you create. You will "sample" (record) sounds from Scratch Day, use Scratch's built-in library of sounds, and learn two different techniques to program your own Scratch Sequencer. In the end we will share our sequencers in a Scratch Studio for others to play with.
Audience: Scratchers 10 years old and up who have experience with the basics of Scratch.
BYOD: PC, Mac, Chromebook, iPad, or Android tablet.

Designing a micro:bit Robot Pet

Mimi Liu-Leyco, British International School of New York

In Year 8 at the British International School of New York, students take Design class where they design a micro:bit robot pet for Year 2 students. They undergo the entire Design process from inquiring and analyzing new information, interviewing younger students, developing design ideas, and then creating the final design before evaluating their work. In this workshop, you too can try out a mini design cycle by learning about existing robot pets, trying out micro:Bit features, and designing your own robot pet using the micro:bit and some additional outputs like speakers and LEDs. You can look at this video about our Robot Pet project: https://www.youtube.com/watch?v=FgLZsVYZPjk

Audience: people 10 years old and up, no prior experience with Scratch is needed

BYOD: Mac or PC with Bluetooth 4.0. If you are bringing a Mac, click here for important information. Also please bring headphones or earbuds (wired, not Bluetooth) if you have them.

Closing Session

Slide Show - Images of Scratch Day

See if you can spot yourself, friends and family in this photo montage of the morning's action that will be running on the big screen as you come into the Auditorium.

Closing Conversation

with Ben Wheeler, live from the MIT Media Lab: ***Tiny Tech: making small experiments with Scratch***

Raffle

At the end of Scratch Day, we will raffle off some cool prizes that have been donated by our sponsors:

- Two Makey Makey Kits
- Two Funkey Kits
- A micro:bit kit
- Two LittleBits kits
- Three gift certificates for workshops at Dazzling Discoveries
- Two gift certificates for Full Day Vacation camp at RoboFun

Everyone registered for Scratch Day is automatically entered in the raffle. You must be there in person to win!