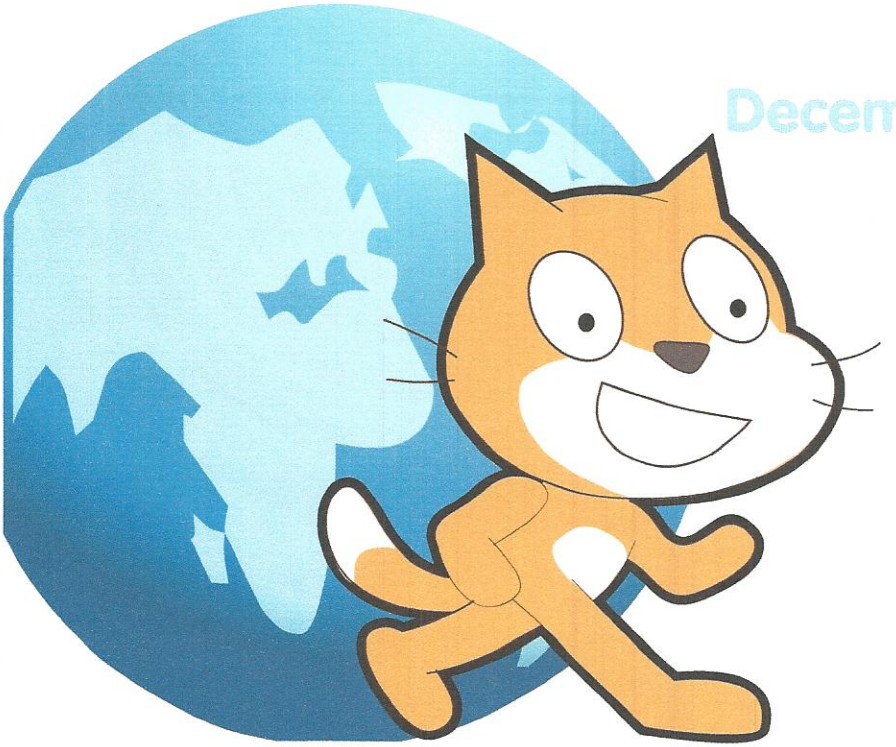
SCRATCH DAY

meet • share • learn



December 8, 2012

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MARYMOUNT SCHOOL
NEW YORK

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TWO SIGMA

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SCRATCH DAY @ MARYMOUNT - DECEMBER 8, 2012 SCHEDULE

8:00 – 9:00	Registration					
9:00 – 9:30	Keynote – David M. Siegel - Scratch: Computational Literacy for All (Page 4)					
Room Numbers	203	301	302	303	403 FabLab	DataViz Lounge 4th Floor
9:45 – 10:45	Can We Start a Scratch Club? (Page 4)	Cool Ways to Make Your Scratch Games Awesome (Page 4)	Introduction to Scratch (Page 5)	Using the GoGo and PICO Boards as Game Controllers with Scratch (5)	Scratch for Arduino (Page 5)	Open Lab
11:00 – 12:00	Computational Thinking using Scratch (Page 5)	Advocating for Computer Science in K-12 (Page 6)		Advanced Game Design (Page 6)		
12:00 – 1:00	Lunch - cafeteria					
Room Numbers	203	301	302	303	403 FabLab	DataViz Lounge 4th Floor
1:00 – 2:00	Get Acquainted with Turtle Art (Page 6)	Projects in Progress: Getting Started, Sharing, Working Together (6)	Scratch for Beginners– Creating Games (Page 6)	Networking: MMORPGs, chat rooms and more (Page 7)	I do, you do, with LEGO® WeDo! (Page 7)	Scratch for Young Children (Page 7) / Open Lab
2:15 – 3:15	Some Math Scratching ideas for the Classroom (Page 7)	What's New with Scratch 2.0 (Page 7)	Assessing Students' Computational Thinking in Scratch (8)		WeDo and PICO – All Together Now (Page 8)	Open Lab
3:30 – 4:00	Closing – Sharing and Slide Show -Auditorium					

MARYMOUNT SCHOOL

NEW YORK

WIRELESS NETWORKS

Wireless networks at Marymount School are three-letter codes.

Cafeteria:	**MAT**
Auditorium/Gym:	**MTA**
2nd Floor:	**GPS, MYS**
3rd Floor:	**ASA, TIE, TCP**
4th Floor:	**ESP, EDE, SAE, EGV**

All passwords are "airmmt89" (no quotes)

9:00 - 9:30 KEYNOTE

SCRATCH: COMPUTATIONAL LITERACY FOR ALL

Auditorium (Everyone, Keynote)

David M. Siegel, Co-Chairman of Two Sigma Investments

I'll highlight the importance of computational literacy, discuss my definition of the term, and provide my perspective on why this is a necessary skill to successfully navigate our modern world. Developing an awareness of the process of thinking and problem solving are fundamental building blocks. Scratch is a wonderful tool that makes the development of computational literacy accessible to everyone, and in particular to kids younger than ever before.

9:45 - 10:45 MORNING SESSIONS

**These workshops may continue after 10:45 in the Open Lab in the DataViz Lounge on the 4th Floor.*

CAN WE START A SCRATCH CLUB?

Room 203 (Everyone; Student Panel/Presentation)

Julianne B. Ross-Kleinmann, Richard P. Connor Elementary School

Learn from the experts: How they learned Scratch, how Scratch challenges them, Scratch in their futures. A panel of 4th and 5th grade self-declared Scratch Club students will discuss why they joined the Scratch community and how Scratch affects them. They will also share some of their projects.

COOL WAYS TO MAKE YOUR SCRATCH GAMES AWESOME*

Room 301 (Everyone; Hands-on)

Tracy Rudzitis and Middle School Students From The Computer School

Sixth and Seventh Grade students from the Computer School will demonstrate some of their game making techniques and strategies and then work with participants one-on-one or in small groups in a hands-on session in game-making using Scratch. Bring your ideas, your questions, your own games (finished or unfinished), and work alongside others to create new games or perfect your existing games.

USING THE GOGO AND PICO BOARDS AS GAME CONTROLLERS WITH SCRATCH*

Room 303 (4th-8th graders, Parents, Teachers; Hands-on)

Erik Nauman and Students from The Hewitt School

7th graders make games in Scratch and use GoGo Boards and PICO Boards as game controllers, configuring sensors and switches for game input. Students will demonstrate their games and explain how they made them. Participants will have a chance to play the games and learn how to make their own.

9:45 - 12 NOON SESSIONS

INTRODUCTION TO SCRATCH

Room 302 (Everyone; Hands-on)

Elizabeth Mirecki, Long Island School for the Gifted

New to Scratch? Not sure how to get started? During this two-hour workshop we will tour the Scratch website and an assortment of projects. Next, you will work on various hands-on activities to create your first Scratch project and share it on the Scratch website. You will also learn about resources for diving deeper into Scratch and strategies for helping others get started.

SCRATCH FOR ARDUINO

Fab Lab Room 403 (Students 4th grade and up, Parents, Teachers; Hands-On)

Steve Farnsworth, United Nations International School

Learn how to use Scratch to program an Arduino. Scratch for Arduino uses the same Scratch interface we all love, with extra blocks added for the Arduino so you can drag and drop blocks to program your project. You will be building circuits using different sensors and electronic components which you will program.

11:00 - 12 NOON SESSIONS

COMPUTATIONAL THINKING USING SCRATCH

Room 203 (Educators, Parents; Presentation/Discussion)

Julianne B. Ross-Kleinmann, Richard P. Connor Elementary School

How can we prepare K-5 students to develop as computational thinkers? Explore one school's journey with Scratch using the MIT Scratch Curriculum Guide. Scratch exposes students to important mathematical and computational skills. As they create and share Scratch projects, students learn to reason systematically, work collaboratively, and think creatively.

ADVOCATING FOR COMPUTER SCIENCE IN K-12

Room 301 (Teachers And Parents; 60 Minutes, Presentation, Then Discussion)

Patrice Gans, Fraser-Woods School

The goal of the workshop is to bring like-minded teachers and parents together to discuss the importance of a curriculum requirement for Computer Science in K-12. The second piece will be to discuss ways to lobby legislators, educate administrators and inspire students and teachers to include Computer Science in the K-12 classroom.

ADVANCED GAME DESIGN

Room 303 (Experienced Scratchers; Hands-on)

Ursula Wolz, Montclair State University

So you want to create more than a simple game that's a remix? This session provides over a dozen sample Scratch projects that introduce basics of game design along with fundamental ideas from computer science. For everyone who wants to write games in Scratch that are fun to play, and easy to remix.

1:00 - 2:00 PM SESSIONS

**These workshops may continue after 2:00 PM in the Open Lab in the DataViz Lounge on the 4th Floor.*

GET ACQUAINTED WITH TURTLE ART

Room 203 (Everyone; Hands-on)

Michael Tempel, Logo Foundation

Turtle Art includes both the A and the M of STEAM learning and teaching. This blocks programming environment lets you create beautiful designs while exploring geometry.

PROJECTS IN PROGRESS: GETTING STARTED, SHARING, WORKING TOGETHER*

Room 301 (Everyone; Hands-on)

Jane Moore, Ariel Kitch, And Students From Quest To Learn

We'll start with a look at students' projects and then show how to use online resources to help develop them further. This will include how to establish an account on the Scratch Web site, how to download and upload projects. There will also be pointers to Scratch lessons and other valuable online resources.

SCRATCH FOR BEGINNERS - CREATING GAMES*

Room 302 (Everyone; Hands-on)

Sophie Mullen, Nittany Middle School

Ever played a video game and wondered how it was made? Well, you can find out in this workshop.

I DO, YOU DO, WITH LEGO® WEDO!

Fab Lab Room 403 (4th Graders+, Parents, Teachers; Hands-on)

Julianne B. Ross-Kleinmann, Richard P. Connor Elementary 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, build and program a basic robot and its virtual counterpart.

SCRATCH FOR YOUNG CHILDREN*

DataViz Lounge 4th Floor (Everyone; Hands-on)

Hope Chafiian, The Spence School

In this session we'll explore Scratch activities and projects for students under 10 years old.

1:00 - 3:15 PM SESSIONS

NETWORKING: MMORPGS, CHAT ROOMS AND MORE

Room 203 (Experienced Scratchers; Hands-on)

Derek Rosenzweig, Hopkins Elementary School

In this session, you'll learn how to integrate Scratch with a multiplayer server. You'll learn how to make Scratch communicate with other computers running Scratch. You will even learn how to make a small-scale MMORPG (Massively Multiplayer Online Role Playing Game).

2:15 - 3:15 PM SESSIONS

SOME MATH SCRATCHING IDEAS FOR THE CLASSROOM

Room 203 (Middle School Teachers, Students, And Parents; Hands-on)

Ihor Charischak, CLIME

In this session participants will unravel some math microworld-like teacher-posed challenges in Scratch that are appropriate for middle grade students to learn about geometric patterns, fractions and proportionality.

WHAT'S NEW WITH SCRATCH 2.0

Room 301 (People With Some Scratch Experience; Presentation)

Ursula Wolz, Montclair State University

Procedures, recursion, web-based, cloning: what is all this, and how can it help me create the projects I want? This short overview of Scratch 2.0 promises to excite you about all those things you wanted to do but couldn't.

ASSESSING STUDENTS' COMPUTATIONAL THINKING IN SCRATCH

Room 302 (Teachers; Hands-On)

Francisco Cervantes and Bill Tally, EDC Center for Children and Technology

Researchers from Education Development Center (EDC) have been working with the ScratchEd Team and Scratchers to develop tools for assessing students' computational thinking (CT). This session will present an overview of the CT Assessment Tool. We will invite discussion about ideas for making the assessments practical for teachers and students.

WEDO AND PICO - ALL TOGETHER NOW

Fab Lab Room 403 (Everyone; Hands-on)

Jaymes Dec, Marmount School; Josh Burker, Greens Farms Academy; Michael Tempel, Logo Foundation

The LEGO WeDo kit and the PICO Board can be used at the same time with Scratch. This allows for a wide range of ready-to-use and do-it-yourself sensors that can provide input to your Scratch projects as well as a motor to propel your LEGO creations.

3:30 - 4 PM CLOSING

SHARING AND SLIDESHOW

Auditorium (Everyone; Presentation)

Jaymes Dec, Marmount School; Michael Tempel, Logo Foundation

After a wonderful day of Scratch teaching and learning, participants can share their projects with the group and see photos and video from all the sessions.

PLEASE PICK UP ALL YOUR GARBAGE
AND KEEP MARYMOUNT SCHOOL CLEAN.