# Computing for All: How to Truly Prepare 21st Century Learners

## **HELPFUL LINKS**

## Lockheed Martin Links

Engineers in the Classroom - <a href="http://www.classroomengineers.org/">http://www.classroomengineers.org/</a>

Lockheed Martin Generation Beyond – <a href="https://www.generationbeyondinschool.com/">https://www.generationbeyondinschool.com/</a>

Build a Robot – https://www.lockheedmartin.com/buildarobot

# Funding for the classroom

DonorsChoose.org page – <a href="https://www.donorschoose.org/">https://www.donorschoose.org/</a>

#### Scratch

Tutorial – https://scratch.mit.edu/tips and https://scratch.mit.edu/studios/4520280/

The original Scratch publication – <a href="http://web.media.mit.edu/~mres/papers/Scratch-CACM-final.pdf">http://web.media.mit.edu/~mres/papers/Scratch-CACM-final.pdf</a>

Scratch Homepage – <a href="https://scratch.mit.edu/about/">https://scratch.mit.edu/about/</a>

TED Talk – https://www.youtube.com/watch?v=Ok6LbV6bqaE

ScratchED community homepage for educators – <a href="http://scratched.gse.harvard.edu/">http://scratched.gse.harvard.edu/</a>

Scratch sample projects across multiple subjects – <a href="http://scratched.gse.harvard.edu/resources/scratch-projects-across-curriculum">http://scratched.gse.harvard.edu/resources/scratch-projects-across-curriculum</a>

#### Raspberry Pi

History of the Raspberry Pi – <a href="https://www.youtube.com/watch?v=UCt6d0SCxO4">https://www.youtube.com/watch?v=UCt6d0SCxO4</a>

Raspberry Pi web site – <a href="http://www.raspberrypi.org">http://www.raspberrypi.org</a>

RasPi Forums – <a href="https://www.raspberrypi.org/forums/">https://www.raspberrypi.org/forums/</a> (post questions here)

Education Link on Pi site - <a href="https://www.raspberrypi.org/education/">https://www.raspberrypi.org/education/</a>

Education newsletter – available from the education link above

MagPi magazines – these are a great resource and date back almost to the start of Raspberry Pi. Can find fantastic projects, information and tutorials throughout these.

Electronic version free (including all back issues) – <a href="https://www.raspberrypi.org/magpi/issues/">https://www.raspberrypi.org/magpi/issues/</a>

#### Linux

Intro to Linux site – <a href="https://training.linuxfoundation.org/linux-courses/system-administration-training/introduction-to-linux">https://training.linuxfoundation.org/linux-courses/system-administration-training/introduction-to-linux</a> (Free online self-paced training)

https://learn.adafruit.com/series/learn-linux-with-raspberry-pi

http://www.toptechboy.com/raspberry-pi-with-linux-lessons/

## **Arduino**

Editors and Simulators – <a href="www.arduino.cc">www.arduino.cc</a>; <a href="mailto:create.arduino.cc">create.arduino.cc</a>;

Learning Resources (and parts) – <a href="https://www.sparkfun.com">www.sparkfun.com</a>; <a href="https://www.sparkfun.com">www.sparkfun.com</a>;

# 3D Printing

17 Incredible 3D Printed Objects – <a href="https://www.youtube.com/watch?v=FSu19nz7NIE">https://www.youtube.com/watch?v=FSu19nz7NIE</a>

PC Magazine "The Best 3D Printers of 2018" - <a href="https://www.pcmag.com/article2/0,2817,2470038,00.asp">https://www.pcmag.com/article2/0,2817,2470038,00.asp</a>

Shape Repositories:

Thingiverse – https://www.thingiverse.com/

YouMagine - https://www.youmagine.com/

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Online CAD Freeware TinkerCAD – <a href="https://www.tinkercad.com/">https://www.tinkercad.com/</a>

Terminology Guide (One of Many) – <a href="http://pages.makerbot.com/rs/444-ZTM-866/images/MakerBot-3D-Printing-Terminology-Guide.pdf">http://pages.makerbot.com/rs/444-ZTM-866/images/MakerBot-3D-Printing-Terminology-Guide.pdf</a>