STEM+CS WORKSHOPS

REGISTER VIA MLP/LAB

Elementary schools: If you wish to have your teachers (min. of 8) at your school location trained in Intro to Computer Science (Code.org Fundamentals), email us at browardstem@browardschools.com

Tuesday, November 6th:
→Intro to Computer Science K – 5 (Code.org Fundamentals)
→Gardening for Nutrition K – 12th

Saturday, December 15th:
→Intro to Computer Science K – 5 (Code.org Fundamentals)

Monday, January 7th 2019
→Intro to Computer Science K – 5
→Project-based Learning - STEM & the Garden K – 12th
→iCAN Problem-Project-based Learning 6 – 8th Grade

Saturday, January 26th 2019
→Intro to Computer Science K – 5
→Everglades Literacy K – 5
→Everglades Literacy 6 – 12

Friday, March 22nd 2019
→Intro to Computer Science K – 5
→Gardening for Nutrition K – 12th
→Project GUTS PBL (6 – 8th Grade ONLY, Prerequisite: CS in Science)

Saturday, April 6th 2019
→Intro to Computer Science K – 5

| ROTATION STATIONS	
Art/Music	Makey Makey with Scratch
Hour of Code	What Is Creativity?
Math	Micro:bit/ Hummingbird
PE	Micro:bit/sensor
Science	Micro:bit/sensor
Social Studies with ELA	Ozobots

For more info visit
browardschools.com/stem and
join us on our Yammer groups:
STEM STEAM STREAM SCREAM SECME
BrowardCODES
Environmental Stewardship
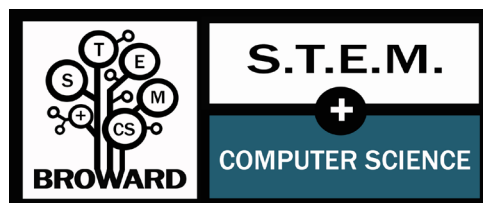
SUSAN CANTRICK, DIRECTOR
APPLIED LEARNING DEPT
600 SE THIRD AVENUE
FT. LAUDERDALE, FL 33301
BROWARDSTEM@BROWARDSCHOOLS.COM

Empower your Content with STEM & Computer Science

2018 GIFTED SYMPOSIUM

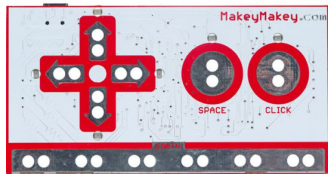
BROWARD
@BrowardSTEM
#BrowardCODES
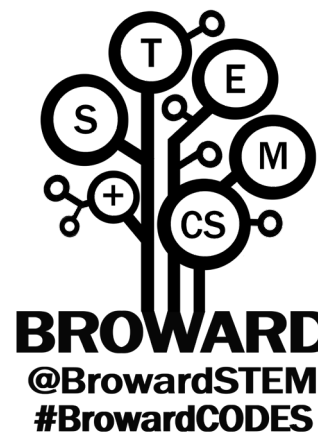
Dr. Lisa Milenkovic
STEM+CS Supervisor
APPLIED LEARNING DEPT.

NOVEMBER 2, 2018

Instructional Facilitators:
Sheryl Arriola
Justin Feller
Cynthia "Cindy" Griffin
Erik Leitner
Rebecca Malones
Annmargareth Marousky
Debra "Kelly" Thomas

ART AND MUSIC WITH MAKEY MAKEY AND SCRATCH

What is it? Makey Makey is a micro-controller that emulates your computer keyboard, sending out keystrokes to the computer when a circuit is completed on one of its inputs. It is a simple circuit board that lets you reprogram the world by connecting everyday objects to a computer. It is an invention kit for everyone!

How does it work? Makey Makey Classic works through opening and closing circuits, just like any other button. Instead of the circuit being closed underneath your keyboard, the circuit is closed through the conductive objects you connect with alligator clips like your hand or your lunch or some tinfoil.

HOUR OF CODE – WHAT IS CREATIVITY?

Celebrate Computer Science (CS) education week (December 3 - 9) by engaging your students in Hour of Code. The overall theme for the 2018 Hour of Code is creativity. Come sign up to participate in Hour of Code and share your thoughts about what creativity means to you as part of our Broward Codes compilation video.

MATH WITH MICRO:BIT / HUMMINGBIRD

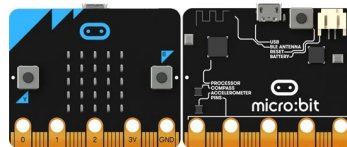**Micro:bit and Macro:math? That's the RIGHT ANGLE**.

What is it and how does it work? Have you been looking for an interesting angle in
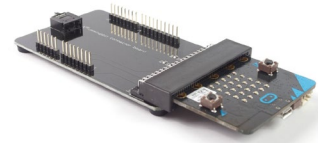
your math class? Want acute way to hook your students in? Concerned that the topic you're going to cover is too plane? Don't be an obtuse educator! MakeCode with finesse!! In this Micro:math lesson, you will experience using Micro:bit and MakeCode to program a circuit board that will control a mechanized protractor from a distance! Whether it is degrees, radians or some other unit of measure, you're sure to catch a Micro:fever today!

PE WITH MICRO:BIT / SENSOR

Micro:bit is a pocket-sized computer that has 25 red LED lights that can flash messages and be used to create games, messages, and sensor displays. There are two programmable buttons that can be used to control for example, games or pause and skip songs on a playlist. It also has an accelerometer so it can detect motion and knows when you're on the move. The built-in compass knows which direction you're heading in and it can use a low energy Bluetooth connection to interact with other devices and the Internet. Using these inputs, outputs and sensors, let's put a Computer Science spin on an old classic...

Red Light, Green Light - This is the classic "Red Light, Green Light" game where one person is a virtual stoplight and gives commands to the other players to either stop or go.

SCIENCE WITH MICRO:BIT / SENSOR

In this station, you will determine if it's time to water your plants by using a Micro:bit Soil Moisture Sensor! You can code your moisture sensor to read or measure the moisture content in both dry and wet soil. The soil itself has some electrical resistance which depends on the amount of water and nutrients in it. It acts like a variable resistor in an electronic circuit. The combination of water and soil nutrients makes the soil have some conductivity. So, the more water there is, combined with the nutrients, the lower the resistance and higher the reading (voltage).

SOCIAL STUDIES WITH ELA AND OZOBOTS

Ozobot is a little toy robot that blends the physical and digital worlds — and teaches kids programming. Ozobot can identify lines, colors, and codes on both digital surfaces, such as an iPad, and physical surfaces, such as paper. You can also code Ozobots using Ozoblockly. Join us on a journey that incorporates social studies, ELA, and technology as you investigate Florida. Research famous events and people, as well as the locations they are tied to. Then, program an Ozobot to make the journey fun and informative as you present your findings. Walk away with your own resources ready to take a beautiful Florida journey without wasting a drop of fuel.