# **ON SITE** INSTRUCTION

Not only is our programming free of charge, we come to you! We provide lesson plans and all supplies needed– we can even customize visits to match your current classroom needs and curriculum! With MCPLS your students can build 21st Century skills, but still have fun in the process.

# WHAT WE OFFER



SIGN UP FOR YOUR FREE VISITS TODAY!



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WWW.MCPLS.ORG/TEACHERS

# GATHER STEAM





# **3D Printing**

#### How do students design something to be printed?

Students can use an app or computer software to create a design! We have tablets equipped with the app (WiFi

required) or can use a school computer lab for the projects.

Designs can also be found on the website Thingiverse.com. Students can work together as a team or individually

#### **Examples of Classroom Use**

- Science: Make models of elements, molecules, and more!
- History: Recreate ancient tools and artifacts
- Math: Study geometric shapes or fractions!
- Whatever you can think of- there are a multitude of potential classroom uses!

### Ozobots

#### What are Ozobots?

Ozobots are miniature robots that are controlled with color coding! There are two ways to code for Ozobots: by drawing specific patterns with markers called "Color Codes," or by using the Ozblocky app.



#### **Examples of Classroom Use**

- Science: Recreate the Solar System
- Math: Learn about Geometry

# Lego WeDo



#### **MCPLS Lesson Plan**

- Class 1: Build Milo (pictured above)
- Class 2: Guided Project (Science), optional 2nd Guided Project (Science)
- Class 3: Guided Project (Computational thinking), optional 2nd Guided Project (Computational thinking)

#### **Lego Mindstorm**



#### **MCPLS Lesson Plan**

- Class 1: Begin building the robot
- Class 2: Finish building the robot
- Class 3: Solve a problem with your robot

5 robots are available– Each robot can take 2-3 classes to build, and 1 class to program. Each class will build only one robot together.

### **Blocks Rock!**



Get your game on with Blocks Rock! Blocks Rock! is a competitive educational game where two players or two teams of players compete to build a color-and-shape specific structure (indicated on included playing cards) in the shortest amount of time.

## **Circuit Scribes**



Circuit Scribes use conductive ink, magnetic modules, and paper to create working electrical circuits! By placing the paper over a steel sheet, included in every kit, your paper becomes the base for blinking lights, beeping buzzers, and whirling motors.

#### **Cubelets Robots**



With Cubelets, you don't need to how to code in order to construct a robot! Each block connects magnetically so that you can make endless combinations of robot behaviors with this modular construction program.

# **Turing Tumbles**



Turing Tumbles allow students to build mechanical computers to solve logic problems with the help of marbles and gears. Each one comes with a graphic novel inspired workbook of hands-on puzzles for students to work through!