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

01 **3D Printing**
3rd grade+

02 **WeDo**
Robotics for kids under age 10

03 **Mindstorms**
Robotics for kids under age 10+

04 **Ozobots**
Programming for ages 6-9

SIGN UP FOR YOUR FREE VISITS TODAY!

Marion County Public Library System

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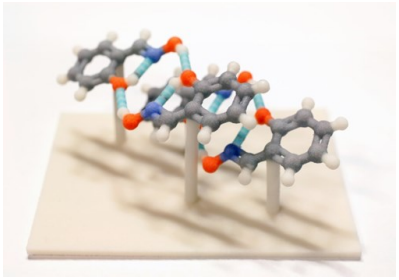
GATHER STEAM

With 3D Printing and Robotics

Marion County Public Library System

3D Printing

3D Printing: 3rd grade+



MCPLS Lesson Plan

- Class 1: Build the design using software
- Class 2: Discussion and finished prints are distributed

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!

Lego Robotics

Lego WeDo: Up to Age 10

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: Ages 10+

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.

Ozobots

Ozobots: 6-9 years old

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.

MCPLS Lesson Plan

- Class 1: Students will get to play with the Ozobots and then program them to move and solve a problem

Examples of Classroom Use

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